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ABSTRACT

Through the development of a new framework in which to approach the subject, education in the 1990s returns to a priority position among the nations of Latin American and the Caribbean. Faced with numerous budget cuts, deteriorating efficiency, and the loss of equity, it becomes necessary to design creative and innovative proposals that will meet the future needs of education. The following articles address some of the concerns of this new era: "Education for All in Latin America in the XXI Century. The Challenges of the Stabilization, the Adjustment, and the Fulfillments of Jomtien" (Fernando Reimers); "The Education of Children and Young People with Disabilities" (Seamus Hegarty); "Defensive Teaching: A Strategy To Facilitate the Each-One-Teach-One Project" (Hyacinth E. McDowell); and "Scientific and Technological Change and Lifelong Education" (Ettore Gelpi). This volume also features lists of activities and publications sponsored by UNESCO's Regional Office for Education in Latin America and the Caribbean. (DB)

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BULLETIN

THE MAJOR PROJECT OF EDUCATION

In Latin America and the Caribbean

SO 021 295

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OREALC

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23

The Major Project
in the Field of Education in Latin America and the Caribbean
has resulted from a consensus
on the part of government representatives
of the countries of the region
concerning the necessity
for a renewed, intensive and sustained effort
to make good deficiencies and to meet
unsatisfied basic educational needs
between now and the year 2000
as a prerequisite for the development
of the those countries
in line with objectives shared by all
and by means of actions in which
each country's own effort
may be benefited
by horizontal, subregional, regional
and international co-operation.

THE MAJOR PROJECT OF EDUCATION
in Latin America and the Caribbean

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BULLETIN 23

Santiago, Chile, December 1990

In order that this bulletin
may reflect in as complete and timely manner as possible
the initiatives and activities carried out
by each and all the countries of the region
in relation to the Major Project of
Education in Latin America and the Caribbean,
pertinent official bodies are invited
to send to
the UNESCO Regional Office for Education in
Latin America and the Caribbean
all information they wish
to have published in this bulletin.

The publication of this bulletin has been made possible by the voluntary contribution of the Spanish Government to the activities of the Major Project of Education in Latin America and the Caribbean.

The views expressed in the signed articles are those of their authors,
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Presentation

With the arrival of 1991 ends the so called "lost decade". This phenomenon is not only an appearance given by the calendar. There already exist a set of indicators which permit to uphold that the purely defensive style facing the crisis has also been given out and a new model based on the concomitance between the requirements of the productive transformation and the social equity. Within the framework of this new approach, education turns to occupy a priority place. However, the starting point is especially critical. The economic adjustment phase to which countries of the region have been submitted has meant sizeable budget cuts in the field of education. This has deteriorated the efficiency as well as equity in providing this type of social service. Therefore, it will be necessary to design creative and innovative proposals capable of responding to the requirements of the development strategy, assuming increasing levels of responsibility by the results.

Quality, innovation, integration of experiences and efforts seem to be the three key elements for dealing with these situations from the standpoint of each reality.

As a contribution to this effort, in this issue we present a paper by Fernando Reimers on Education for all in Latin America in the XXI century. In it, he examines changes in public expenditure levels for education during the past decade and the stabilization programmes that were imposed, pointing out that these adjustment policies have proven to not be short term. Thence he establishes that, to the extent that future programmes emphasize human development growth, it will also be necessary for education to respond to these requirements and to propose realistic courses of action. He affirms that Latin American countries which aspire to regain economic growth following the "lost decade" of the eighties, must make great efforts in the area of education to develop productivity that would permit economies to be competitive in an increasingly global market.

Seamus Hegarty, in his article "The education of children and young people with disabilities", makes an interesting bid for attention in a world that is still not sufficiently aware of the existence of disabled youths. And this gives cause for concern if one takes into account that around 80% of the 200 million physically, mentally or sensorially handicapped children in the world today live in developing countries. Hegarty's work provides facts showing that many forms of assistance to these children and youths may be provided through the adequate allocation of resources that are already available in many countries of the region.

We also present an experience called "Defensive learning" which aims at being a new contribution for facilitating education for all within the framework of activities of the International Literacy Year in Trinidad and Tobago. Hyacinth E. McDowall indicates that what is innovative about this programme consists of bringing students face to face with literacy barriers while at the same time providing them with the training to face the causes that give rise to them .

Ettore Gelpi provides us with some thoughts on scientific changes and continuing education, recalling that relations with northern countries are often the outcome of opportunities that exist in southern countries to develop independent scientific and technological research. These regions must take on the structural changes in work that scientific progress introduces and be prepared to train their inhabitants and integrate them into the new society of tomorrow.

As usual, we include our section informing on activities that the UNESCO *Regional Office for Education in Latin America and the Caribbean* (OREALC) *has carried out in countries of the region.*

EDUCATION FOR ALL IN LATIN AMERICA IN THE XXI CENTURY. THE CHALLENGES OF THE STABILIZATION, THE ADJUSTMENT AND THE FULFILLMENTS OF JOMTIEN

Fernando Reimers*

This report examines the changes in the levels of educational public expenditures in Latin America during the past decade, period in which many countries of the region set up stabilization and adjustment economical programs.[1]
The importance of this study is due to the fact that this adjustment has proven to be not a short term process, so it must be considered as a new scenario of educational planning and administration. In so far as future adjustment programs view development in a humane way, it is essential that the educational sector be capable of responding to such a challenge; that is why it is important to examine how this sector answered to the adjustment in the past and therefore propose future lines of action.

The importance of education

Briefly, we can say that the findings of the last three decades relating to influential factors upon human learning and the contributions of education to human growth, show that a central place must be given to education in any social project. We know today that the greatest part of human behaviour is learned. Differences between human groups, if one compares their productivity and laboral capacity, their ethics and sense of responsibility, or any other human expression –artistic, spiritual– indicate more differences in this socialization than biological or genetic. Education is one of the most refined expressions of humanity and humanization. When someone creates the conditions enabling another person to learn (to read, to multiply, the musical scale or higher levels of abstract thought) he is participating in an essentially human process. Education is the attempt to systematize teaching, by which new generations receive the skills and knowledges enabling them to conduct themselves as social, productive and political beings.

Here exists nowadays sufficient evidence showing the power of education and its contribution to the development of societies as rising generations are able to learn more knowledge and skills than those preceeding them. For example, studies on the effects of education upon agricultural productivity of peasants indicate that four years of primary education provide the minimal literacy skills necessary fot the use of newer technology and increases the farmers'productiveness by an average of 9%.[2]

* Fernando Reimers. Institute Associate. Institute for International Development. Harvard University.
Report presented at the Workshop on Poverty Adjustment and Infantile Survival organized by UNICEF in Lima, Peru, from the 3rd to the 6th of December 1990.

1 By Latin America, the author is referring to the countries of the region which share a historical and institutional heritage, that is to say the Spanish speaking countries, including Brazil and Haiti.

2 Lockheed, E.; D. Jamison and L. Lau, 1982. "Farmer education and farm efficiency: a survey". *Economic Development and Cultural Change*. World Bank Research Paper. Baltimore. Johns Hopkins.

A study upon the effects of labour training in Peru shows that is more effective amongst those who have the highest level of primary education,[3] while this training will raise their incomes by more than 10% which will also be shown by an increase in their productivity.

Studies of education return rates have investigated the contributions of education upon productiviy through salary differences of groups with distinct educational levels.[4] One study of these return rates showed that in Venezuela, in 1984, the average salary of a person with primary education was 75% higher than another without any schooling; the one of a person with secondary education was 45% higher than the one with primary education, and the university graduate's income was 90% higher than the one with only high school. Considering such differences all along the productive years of a person's life, discounting the lost income for the years not worked and the costs implied to acquire the education, it appears obvious that primary education represents an investment with a return for the individual of 24%, in high school, of 12% and university, of 15%.[5]

These studies indicate that education –in so far as it increases the human potential– is a generating source of wealth which translates itself in an increase of income for the one who acquires it and also for the economy in which such a person produces. Three decades ago, studies on the source of the economical growth of postwar European countries found out that capital investment and number of workers were insufficient to explain such growth; the studies stressed the educational level of the Europeans workers as an important factor of these postwar countries rapid economic recuperation.[6]

It is also known that education –as a factor of contributing to development– does not operate in a vacuum, but interacts with other elements such as the access to productive technology, the income distribution and the aspects of the social organizations. For example, among various studies on the effects of education upon farm productivity, the dividends are greater if are taken into account the effects of complementary production factors, such as the farmer's income level. Eight studies which did not take these other factors into consideration averaged for four years primary education a 6% return rate, while, those who did take them into account, showed dividends of 13%.[7]

Advantages gained through education go beyond the economical:

"School attendance is more than just a way to economical development. In most societies, the level of a person's education determines his or her material and social success... Higher education is perceived politically as a way of achieving greater social mobility and a better income distribution".[8]

For example, various studies show that education increases girls subsequent capacity as mothers in bettering their children's health and nutrition and reduce their fertility.[9]

Hallack stresses the importance of education as being a human right:

"Above all, education is a human right and as such should receive priority when granting national funds. It would seem narrowminded to confine education to a mere production of manpower, or to measure education success by

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3 Arriagada, A., 1989. "Occupational training among urban peruvian men: does it make a difference?" Work presented to the *Annual Meeting of the Comparative and International Education Society*. Harvard Graduate School of Education. Cambridge, March 1989.

4 See, for ex., Psacharopoulos, G., 1973. *Returns to Education*. Amsterdam, Elsevier.

5 Psacharopoulos, F. and F. Steier, 1987. *Education and the Labor Market in Venezuela* 1975-1984. World Bank. Mimeo.

6 See, for ex., Denison, 1967. *Why growth rates differ: postwar experience in nine western countries*. Washington, D.C. The Brookings Institution.
Schultz, 1961. "Education and economic growth". In *Readings in the economics of education*. M. Boeman et al. (Eds.), 1968, Paris, UNESCO.

7 World Bank, 1980. World Development Report 1980. Washington, D.C. World Bank. p. 48.

8 Carnoy, M., 1986. "Educational reform and planning in the current economic crisis". *Prospects*. 16 (2): 205-214. p. 206. Author's translation.

9 World Bank, 1980. *World Development Report* 1980, Washington, D.C. World Bank. p. 50.

the number of children or adults having effectively consumed a specific educational package. Of one views education as a human right it is because it leads to individual creativity, greater economical, social and cultural participation in society and as such, to a more effective contribution to human development".[10]

Obviously, material advances in the conditions of people's life be possible only if there is a rise of productivity expressed in economical growth. Growth alone, however, is not sufficient to insure fair distribution of benefits; this growth is a necessary condition, although not the only one, for members of a society to increase their standard of living. In a world where the economies are becoming more and more interdependent, it is obvious that a country's economical growth is based on its capability of being competitive on the international market. Moreover, the advances in the media industries and genetic engineering show that the more competitive economies are those having at there disposal a highly productive and trained population. This does not signify that farmers must only be taught to read so that they may understand the instructions on a new fertilizer or basic maths so they are able to prepare a manure mix, it is also important to develop capacities which go beyond reading and basic mathematicals operations, relational and abstract thinking processes, allowing these workers, farm, industrial, and growingly in the area of the medias, to be able to resolve problems and interact with computers.

Which is the education base of Latin America's rising productive generation? Table 1 shows the percentage of those between the ages of 15 and 19 years old who have received formal primary education in Latin America and other countries. Column (I) indicates the percentage within this age group without any primary education; column (II), those who have received some primary education, but that cycle has not been completed; column (III) those who have completed the primary cycle; column (IV) is the sum of three former groups, indicating the percentage within this age group not having received any secondary or university education. The last two columns indicate the gross national product per inhabitant in 1988 in dollars and its growth between 1965 and 1988.

In addition to these Latinamerican countries are included as a reference, some industrialized countries (Canada, United States, Israel and Japan) and some of recent rapid economic growth (Hong Kong, Korea, Singapur and Thailand).

It should be observed that the age groups referred to in table 1 are the youngest (not considering those yet studying the primary cycle). These figures are probably optimal indicators of the education level of the productive population; typically, the youngest layers of the population have higher education levels than the oldest layers. For example, in Venezuela, the percentage group of those without any formal education was 7.6% for those between 15 and 19 years of age; it increases to 19.2% for those between 35 and 44 years of age and 30% for those between 45 and 54 years of age.

Countries where less than 1% of the population is without any formal education are amongst the most developed economically; Canada, Israel, Japan, Korea, the United States and Hong Kong. In 10 Latinamerican countries, more than 10% of the studied age group has no access to formal education. Within the countries of rapid growth, Singapur is an exception with 14.7% of its population without access to education and an economical growth rate of 7.2%. Besides Singapur, the other countries of major growth (Hong Kong and Korea) have 85% of their population with education levels above primary education. In contrast to this, not one of the Latinamerican countries has more than 60% of its population with education level above primary.

[10] Hallak, J., 1990. *Investing in the Future. Setting Educational Priorities in the Developing World.* Paris, UNESCO. International Institute for Educational Planning, p. 45. *Author's translation.*

Table 1

PERCENTAGE OF THE POPULATION WITHOUT ANY FORMAL EDUCATION AND WITH PRIMARY EDUCATION AND GROSS NATIONAL PRODUCT IN LATIN AMERICA AND IN SOME OTHER COUNTRIES

Country	Year	Age	Population % with Primary Education				Gross product	
			Zero (I)	Incompl. (II)	Complete (III)	(IV)	1988 (US$)	65-68 (%)
Argentina	1980	14-19	1.3	21.7	23.8	46.8	2 520	0.0
Bolivia	1976	15-19	14.4	36.9	==>	51.3	570	-0.6
Brazil	1980	15-19	17.0	61.5	9.4	87.9	2 160	3.6
Chile	1982	15-19	1.6	47.8	==>	49.4	1 510	0.1
Colombia	1973	15-19	11.3	52.7	==>	64.0	1 180	2.4
Costa Rica	1973	15-19	3.4	25.1	35.9	64.4	1 690	1.4
Cuba	1981	15-19	1.0	5.3	11.1	17.4		
Ecuador	1982	15-19	7.3	8.3	35.8	51.4	1 120	3.1
El Salvador	1980	10>	30.2	60.7	==>	90.9	940	-0.5
Guatemala	1973	15-19	87.7	==>	==>	87.7	900	1.0
Haiti	1982	15-19	44.1	39.5	==>	83.6	380	0.4
Honduras	1983	15-19	11.3	60.7	==>	72.0	860	0.6
Mexico	1980	15-19	14.2	20.2	20.5	54.9	1 760	2.3
Nicaragua	1971	15-19	36.9	57.9	==>	94.8		-2.5
Panama	1980	15-19	4.7	12.3	24.2	41.2	2 120	2.2
Paraguay	1982	15-19	4.4	36.6	24.6	65.6	1 180	3.1
Peru	1981	15-24	7.5	19.9	15.6	43.0	1 300	0.1
Dominican Rep.	1970	15-19	21.0	43.5	8.2	72.7	720	2.7
Uruguay	1975	15-19	1.1	16.5	22.3	39.9	2 470	1.3
Venezuela	1981	15-19	7.6	42.1	==>	49.7	3 250	-0.9
Canada	1981	15-19	0.2	2.1	4.1	6.4	16 960	2.7
USA	1981	25-29	0.7	==>	56.1	56.8	19 840	1.6
Hong Kong	1981	15-19	1.0	2.5	12.1	15.6	9 220	6.3
Israel	1982	14-17	0.4	15.6	==>	16	8 650	2.7
Japan	1980	25>	0.4	==>	45.3	45.7	21 020	4.3
Korea	1980	15-19	0.5	12.7	==>	13.2	3 600	6.8
Singapur	1980	25-29	14.7	56.2	==>	70.9	9 070	7.2
Thailand	1980	15-19	3.3	60.9	8.9	73.1	1 000	4.0

Source: UNESCO. *Statistical Yearbook 1989*, Paris and World Bank. *World Development Report 1990*. Washington, D.C.

It should be noted that the indicators presented in table 1 possibly underestimated the actual differences between the education in Latinamerican countries and the one in more advanced countries, as only inequality in the access to education is being referred to. There are also differences in the educational quality of what students receive at the same level, which is reflected by how much is spent per primary student in various countries. While Latinamerican countries spent a maximum of 200 dollars per student at primary level in 1985 –Peru spent 42 dollars per student in 1985; Hong Kong, 489 dollars; Israel, 1 104 dollars;

the United States, 3 644 dollars and Japan, 1 602 dollars.[11]

Why is it important to invest in education? Educational expenditures are a direct determinant in the quality of education as they serve to finance the teacher (the level of salaries is an incentive for the excellency of those wishing to become teachers), school buildings, scholarships, school equipment and supplies. It is obvious that school performance does not only depend on the quality of education, but also on what the child receives at home. (The educational level of the parents, and the education opportunities these can offer their childrens). Thus in developed countries –in the United States, for example, we understand that equal opportunity referring to education, is not only measured by the existence of free schools, which students must attend, but also in the results the students of different socioeconomic status draw from them. The assumption underlining this conception is that the school must somehow play a compensating part to the families' differences and give more to those who receive less, education wise, from their families.

Another reason why spending for education is especially important in less developed countries, is that the schools contribute to a greater extent to the academic achievement when the country is lesser developed.[12] This could show the diversity of socialization sources as the country develops.

All this would indicate that Latinamerican countries wishing to gain back their economic strenght following the lost decade in the eighties, should make tremendous efforts in the education area so they may develop the productivity necessary to competitive economies on an increasingly more global market.

Paradoxically, however, the crisis of the eighties has influenced the education sector in such ways that the gap has deepened between this region of the world and developed countries. The purpose of this report is to examine these changes and propose levels of action to prepare the necessary human base which allow us to reach the next century with a development with social justice.

The adjustment and the reduction of the educational horizon

A basic idea of this report is that educative systems have two ways by which they can respond to this new scenario of cutbacks of funds for public education: either fast short-term solutions or a planned reform. I state that between the two, the latter has more chances of preserving education efficiency and equity. My investigations however show that most education systems responded to the adjustment these last ten years with short-term solutions.[13]

Here are the total opposite of a planned reform. Moreover, they can lead to adjustements favoring more the interest of powerful and influential groups more than efficiency and equity considerations.

During the eighties, Latinamerican countries which suffered drastic economical setbacks, applied various stabilizing and adjustment methods (conventional stabilizing programs, heterodoxical, with the support of funds) which generally perceived the debt problem as being one short-term, the solutions being fundamentally the restauration of the balance payments and the elimination of the fiscal deficit.[14] This

[11] Lockheed, M. and A. Verspoor. *Improving Primary Education in Developing Countries*. Mimeo. Washington, D.C. World Bank, 1989.

[12] Heyneman, S. and W. Loxley, 1983. "The effect of primary school quality on academic achievement across twenty-nine high and low income countries". *American Journal of Sociology*. 88(6): 1162-1194. Schiefelbein, E. and J. Simmons, 1981. *The determinants of school achievement: A review of the research for developing countries*. Ottawa: International Development Research Centre.

[13] For a more detailed discussion of this topic, see Reimers, F. *Deuda externa y financiamiento de la educación. Su impacto en Latinoamérica*. (Santiago: UNESCO/OREALC. 1990).

[14] Ficher, S. and I. Hussain. "La crisis de la deuda en los años noventa". *Finanzas y Desarrollo*, June 1990. pp. 24-27.

short-term vision of the problem led many specialists to say that the debt coved curtail long-term development.[15]

Until the mid-seventies, Latinamerican education systems grew in quantity. This expansion wouldn't have been possible without substantial increases of the inversion of public funds towards education. Between 1965 and 1970, the percentage of the gross national product allotted towards education grew at an average annual rate of 2.42%; the average increase of the state's total expenditures raised by an annual rate of 1.53%.

However, the Mexican moratory was announced in 1982 and with it came the gradual understanding that in Latin America, country after country –to more or less degrees– were undergoing their own version of the debt crisis.[16] As the availability of international credits disminished, pressures to adjust the economy of every one of these countries increased. Once governments have decided to cut public spending, the following question is what should be cut and how much in each sector.

This report examines the most recent available figures of the changes in public education expenditures in Latin American countries during the eighties and in other indicators of educational efficiency. This report concludes by proposing the necessary actions to gain back the human development in future lines of adjustment.

Cutback in the levels of education expenditures

What has been the impact of the adjustment programs on public expenditure in education during the past decade? Table 2 shows that the average annual increase of education expenditures in real terms (that is, excluding the effects of inflation and adjusting the annual figures to the equivalent 1985 acquisition power) is sensibly greater before 1980 than during the eighties. Between 1975 and 1980, total education expenditures increased in all countries. Between 1980 and 1985, the total expenditure dropped in real terms in 12 of the 18 countries for which data is available. Moreover, the growth rate of education expenditures decreased in 3 of the 6 remaining countries. Only 3 countries, Honduras, Nicaragua and Panama increased their education expenditures in the eighties more than in the previous decades. The following hypotheses may explain why.

In 1985, Panama had, after Haiti, the second lowest level of debt service in the region, as a percentage of its exports, consequently feeling less pressure to adjust its economy. The Centralamerican conflict drew high levels of international aid (especially from the United States) to Honduras, which also had the effect that this country felt less pressure to adjust its economy. Finally, in Nicaragua, the Sandinista revolution gave more priority to education than the former governments, which explains the steep increases of the education expenditures growth rate which went from 1.63% annually between 1975 and 1980 to 12.47% annually between 1980 and 1985.[17]

Educational expenses suffered disproportionately in relation to the public expenditures as they were reduced in proportion to state expenses and the gross national product. This indicates that the education sector suffered disproportionately the burden of the adjustment and the gains reached in the seventies were lost in the eighties.

However, the impact of the adjustment does not only limit itself to educational budget dis-

[15] Carvounis, C.C. *The foreign debt/national development conflict.*. (Connecticut: Quorum, 1986).

[16] Latin America is the world region with the highest debt. 11 of the 17 world's most indebted countries are in Latin America. (World Bank. *World Debt Tables*. Vol. 1. Washington, D.C.: World Bank. 1988, p. xviii).

[17] A recent article on the education reforms set into place during the Sandinista revolution mentions that various adult education programs were developed -including a massive literacy campaign. It also states that the central government's education expenses between 1980-85 were 10%, which is consistent with the 12% mentioned earlier in this report. (Arrien, J. and R. Matus. *Nicaragua: diez años de educación en la revolución*. Managua. Claves Latinoamericanas, 1989.).

Table 2

CHANGES IN TOTAL PUBLIC EDUCATION EXPENDITURE IN LATIN AMERICA PREVIOUS TO AND AFTER 1980.

(In millions of US dollars at their constant 1985 value)

Country	Millions of dollars			Annual Growth		
	1975	1980	1985	1975-80	1980-85	1975-85
Argentina	1 651	2 643	1 201	9.87	-14.60	-3.13
Bolivia	118	161	12	6.45	-40.41	-20.35
Brazil	4 480	7 168	7 987	9.86	2.19	5.95
Chile	448	727	630	10.16	-2.83	3.46
Colombia	520	578	...	2.12	...	...
Costa Rica	130	278	162	16.50	-10.23	2.26
Ecuador	250	580	415	18.28	-6.45	5.19
El Salvador	137	164	110	3.58	-7.61	-2.17
Guatemala	120	188	169	9.33	-2.10	3.46
Haiti	17	31	23	13.31	-5.39	3.54
Honduras	83	101	145	3.98	7.51	5.73
Mexico	4 246	4 702	4 424	2.06	-1.21	0.41
Nicaragua	82	89	160	1.63	12.47	6.91
Panama	176	199	237	2.46	3.57	3.01
Paraguay	27	44	47	10.62	1.10	5.76
Peru	533	545	459	0.46	-3.37	-1.48
Dominican Rep.	72	93	75	5.16	-4.16	0.39
Uruguay	...	134	124	...	-1.53	...
Venezuela	2 612	2 911	3 215	2.19	2.01	2.10

Lockheed, M. and A. Verspoor, 1989. *Improving Primary Education in Developing Countries: A Review of Policy Options*. Hand writing. World Bank, Statistical Appendix.

proportionate reductions. These cutbacks are followed also by modifications in the structure of the education budget, which are injustified by efficiency and fairness criteria.

Due to the institutional and structural rigidity of the educational budgeting, and if we consider that budgeting and planning are not only technical activities, but are also political,[18] some things are easier to rule out than others. The budgets for school buildings are especially affected, and the common expenses item increases in most countries between 1980 and 1986.[19] Funds for school supplies drop disproportionately as also do the levels at primary education.

From reductions of expenses to the quality setback and access to primary education

These reductions in the expenses growth rate per student should be analyzed in the context of education systems not having yet reached universal primary education enrollment and still needing great improvement in the internal efficiency of their primary schools. Two phenomena accompany the financial decline: a de-

[18] A study on education decisions-making in Mexico concludes by saying that politics play an importan role in budgeting and planning. McGinn, N. *et al. La asignación de recursos económicos en la educación pública en México*. (Mexico, Fundación Javier Barros Sierra, 1983).

[19] Reimers, F. "The Role of Organization and Politics in Government Financing of Education". *Comparative Education*, 1991. 27(1):33-49.

Table 3

NET ENROLLMENT RATES OF CHILDREN BETWEEN THE AGES OF 6 TO 11 IN 1980 AND 1985.

Country	Net enrollment 6-11 years old		Annual growth 1980-1985
	1980	1985	
Argentina	95.10	95.20	0.02
Bolivia	86.60	84.30	-0.54
Brazil	88.60	90.10[a]	0.34
Chile	89.60	88.80	-0.18
Colombia	81.80	75.90	-1.49
Costa Rica	89.30	83.90	-1.24
Cuba	97.60	93.70	-0.81
Ecuador	87.80	88.80	0.23
El Salvador	79.00	73.80[a]	-1.35
Guatemala	60.50	65.40[a]	1.57
Haiti	36.50	54.70	8.43
Honduras	80.30	91.00[a]	2.53
Mexico	92.60	100.50	1.65
Nicaragua	77.30	84.90[a]	1.89
Panama	88.50	88.60	0.02
Paraguay	95.20	95.20[a]	0.00
Peru	86.50	97.50	2.42
Dominican Rep.	99.90	107.30[a]	1.44
Uruguay	83.00	91.00	1.86
Venezuela	103.20	105.60[a]	0.46

Source: Lockheed and Verspoor, 1989.
[a] Gross enrollment rates.

crease in the percentage of children in school age attending schools and a drop or no improvement of the system's performance, which is shown, for example, by the percentage of children failing.

In table 3, we note that between 1980-1985, there is a drop of the net enrollment rates in six countries (Bolivia, Chile, Colombia, Costa Rica, Cuba and El Salvador). Moreover, in six countries, the increase of net enrollment rates is less than 1% yearly. Only 8 countries raise their enrollment rates by more than 1% annualy.

Even though there are less primary school failures since 1975, repetition figures still indicate an average of 11% in 1985 as shown in table 4.

This indicates that there still is much improvement needed to better the primary education performance. Repetitions are a serious problem: on one hand, the possibilities that a child completes the whole basic cycle are reduced when parents are informed that "their child has no head for studies". On the other hand, repetitions mean loss of valuable funds, as for ex., in Peru: of 3 712 000 children enrolled in primary schools, 14% failed,[20] meaning that at a cost of US$ 42 -per student in

[20] These are official figures, reported in Lockheed and Verspoor. Emesto Schiefelbein, however, has often stated that official data underestimate the actual repetition rates.

Table 4

PERCENTAGE OF PRIMARY EDUCATION STUDENTS REPEATING A GRADE IN LATIN AMERICA

Country	Repeaters			Annual Growth		
	1975	1980	1985	1975-80	1980-85	1975-85
Argentina	8.70	...	...	...	...	...
Brazil	15.20	20.20	19.70	5.85	-0.50	2.63
Chile	12.50	...	...	...	...	...
Colombia	15.40	...	17.00	...	...	0.99
Costa Rica	6.50	7.90	10.60	3.98	6.06	5.01
Cuba	8.10	5.70	3.20	-6.79	-10.90	-8.87
Ecuador	11.40	9.70	8.60	-3.18	-2.38	-2.78
El Salvador	7.50	8.80	8.40	3.25	-0.93	1.14
Guatemala	14.80	15.00	13.10	0.27	-2.67	-1.21
Haiti	...	20.90	9.50	...	-14.59	...
Honduras	...	16.20	15.50	...	-0.88	...
Mexico	11.00	9.80	9.90	-2.28	0.20	-1.05
Nicaragua	13.70	16.90	15.40	4.29	-1.84	1.18
Panama	12.60	12.70	13.10	0.16	0.62	0.39
Paraguay	15.30	13.60	10.60	-2.33	-4.86	-3.60
Peru	10.20	18.80	14.10	13.01	-5.59	3.29
Dominican Rep.	...	18.00	12.80	...	-2.59	...
Uruguay	14.00	12.40	11.30	-2.40	-1.84	-2.12
Venezuela	2.70	9.80	9.40	29.41	-0.83	13.29

Source: Lockheed and Verspoor, 1989.

current costs only– 21 826 560 dollars were lost in 1985.

The paradoxe is that, due to the way the cutbacks are done –for ex., leaving very little funds for research and educational innovation– the education system cannot easily improve its performance and make better use of the funds in this new austerity context.

Faced by a decline in the supply of public primary education, in some countries have risen the demand and supply of private tuition. This increase of enrollment in private schools could diminish the equity in the supply of education.

Discussion and implications of such findings

How were the education systems affected by the economical adjustment programs set forth in Latinamerican countries? The analysis of the collected indicators shows, that during the eighties, public education expenditures were reduced in most countries of this region, in absolute terms and moreover in terms per capita, and also as a proportion of total public spending. The fiscal cutbacks of the eighties curtbacked the increases in funds for education as was the case in the decade of the seventies.

Having to face such reductions, the Ministries of Education in turn readjusted their budgets, in the most practical and convenient ways politically, however not so good as regard to efficiency and equity. For example, inversion expenses suffered drastic and disproportionated cutbacks, as also did non-salary items such as instructional materials; primary education levels also suffered important reductions. This finantial deterioration of the education

system also affected its quality. Net enrollment rates decreased in 6 countries and barely increased in six others. The high repetition rates didn't change, which meant a waste of the poorly increasing funds.

The educational costs of the adjustment process should be measured not only in terms of what suffered an obvious deterioration, but also in terms of what did not improve, basically the great inequity in educational opportunities for students of distinct socio-economic backgrounds.

Even though private school enrollment did increase only marginally in some countries, this fact does not resolve the equity set back in the education supply which may have resulted from the adjustment process (the rise of inequal educational opportunities for students of different social groups).

It should be observed also that this adjustment process affects child welfare not only by the reduction in the education and health expenses, but also through the consequential effects on families, especially those of low incomes. For example, in Venezuela: "from 1978 and onwards, a rise in juveniles dropout was observed. According to data taken from a survey of a sample of homes between 1978 and 1985, from a total of children of 10 to 14 years old not attending school, those who did not attend for economic reasons, rose from 15% to 23%."[21]

The last report of the United Nations Development Programme estimates that between 1980 and 1985, there were 4 million less jobs in Latin America than indicated by the tendencies previous to the adjustment and that unemployment increased by more than 6% annually. The adjustment also was expressed in a deterioration of families real income; for example, at the outset of the eighties, real incomes dropped by 50% in Peru and Bolivia, by 30% in Mexico and Guatemala and by 25% in Venezuela.[22] The adjustment meant for many countries cutbacks in public subsidies, raising food prices. The loss of income and increase of price lowered many families' standard of living. With more children whose families were suffering the consequences of this adjustment, to simply maintain the previous school performance would have require a more efficient state intervention, not less. The paradoxe is that the adjustment not only provoque a set back in the system's education performance but also multiplies the losses in efficiency and equity in the supply of education.

What is the explanation of this drop of educational priority in relation to other sectors of state expenses and the changes in the structure of the budget for education? These questions can be analyzed at various levels. First, these changes express the results of negotiations and bureaucratic policy or simply power inequalities of the groups involved. For example, the disproportionate reduction of funds in the area of education reflects this sector's incapability to oppose the economic cabinet and defend its budget, as do other ministries. The structure adjustment increased the Ministry of Economy's power to set limits to the other ministries's demands.

The education sector didn't have the human and organizational capacity to negotiate successfully with this new set of actors in the cabinet.

At another level, the impact of the adjustment in education can be understood from the point of view of political economy in public decision-making. This perspective could explain why education suffers more than the defense sector for example (omitting the contributions of each of these sectors to development); why teachers'salaries suffer more than those of other sector, as funds for school materials or buildings run out in favor of teachers salaries, and as primary education levels suffer more than higher levels.

Education, as a sector belonging to the State, seems to have lost some of its political priority. Factors explaining the way the education sec-

[21] Cartaya, V. and H. García. *Infancia y pobreza. Los efectos de la recesión en Venezuela*. Caracas, Nueva Sociedad. p. 110.

[22] United Nations Development Programme. *Human Development Report*, 1990. (New York. Oxford University Press.) p. 35.

tor responded to the adjustment also include bureaucratic power. Disproportionate cutbacks in the primary sector could be partly the result of the political importance of the university students strikes; but it is also because in many Latinamerican countries this sector has better planning bureaus, technically more capable than those of the Ministry of Education. As such, the university education subsector is better prepared not only for political street battles, but also to fight the bureaucracy for its share of education funds.

Conclusions and suggestions for a long-term recuperation of educational management

The challenge faced by educational planners is to survive the adjustment process maintaining the contribution of education to the economical, political and social development, which implies developing incentives to contribute to growth and human development. This requires restating educational objectives, refining the connection between work and productivity, restructuring its financing, and increasing the efficiency of educational administration.

The impact of the adjustment on the education budget works at two levels: one, directly, reduces the availability of funds for the education system; the other is indirect, through the adjustment process which results in reduced education budgets in real terms.

The direct impact of the adjustment on the education production factors which are bought with currency should not be underestimated, especially in an increasingly inter-dependant world. Currency is used to buy production factors for the supply of education. These go from the assistance of international experts to a team of specialists, professional training and publications or may provide the necessary funds enabling education administrative personnel to keep in contact with international teams specialists. As such funds are usually the least visible, one may think that their disappearance might be of no major importance; however the consequences could be just as important as of those more visible funds. One example is the university scientific laboratories virtually paralyzed due to lack of equipment and material, or libraries which had to cancel their subscriptions to international publications because costs go way beyond their budget. Educational researchers and planners will have to go on reducing their professional contacts with foreign colleagues due to their inability to participate in international exchanges, to attend conferences or even to read what is being published elsewhere.

The dynamisms of adjustments are mainly through education budgets not maintining parity with inflation rates. Various studies have shown that one of the debt destabilizing correlates and of the adjustment processes in Latin America are the inflationary processes caused by it.[23] As a consequence of the inflation, real expenses in education decrease, while nominal expenses increase. Actually, the levels of education supply may appear to be untouched, if massive number of education employees have not been laid off; but the results will make themselves felt gradually as no new hiring is done and educational quality disminishes because of the teachers'lost buying power. A drop in teachers' salaries was observed in Costa Rica, where the average salary in 1986 was 66% of its present value in 1980; in comparaison, elsewhere in the economy, the average state salary in 1986 was 26% higher than in 1983. The same is observed in Mexico, where primary school teachers' salaries are reduced by 34% in actual

[23] See, for ex., Dornbusch, R. 1987. *Inflation stabilization with incomes policy support*. New York: Group of Thirty.
Mallon, R., 1987. "Foreign debt and the international economic reelations of Latin America". Presented at the Seminar on Latin America and World Economy. Instituto de Integración Latinoamericana. Buenos Aires.
Mallon, R., 1988. *Uncertainty and policy flexibility in Argentina*. Cambridge, Ma: Harvard Institute for International Development. Development Discussion Paper No. 265.
Sachs, J., 1986. "The Bolivian hyperinflation and the economic stabilization program of the Paz Estenssoro government". Presented at the meeting of the Sociedad Latinoamericana de Econometría, Córdoba.

terms between 1983 and 1988, and those of primary school directors drop by 40% during the same period. The salary drop is greater for teachers with the highest qualifications.[24] In Argentina, teachers' salaries dropped in 1982 by 55% of its 1980 value, recovering by 97% in 1987; in 1982 in Bolivia, the teachers'salaries dropped to 34% of its 1980 value, recovering 73% in 1987; in Guatemala, in 1987 they were 54% of their 1980 value.[25]

In so far as the salary reduction exceeded those of other professionals with similar educational levels this may have lead teachers (and others considered as in the teaching profession) to seek other professional options. Even though teachers of high professional quality may go on being attracted to this profession, the need to increase their incomes with additional jobs may seriously affect the quality of their teaching. In a review of the implications for the education policies of the international education achievement studies, Husén concludes[26] that the teacher *timetable* is a critical variable in the quality of teaching. Teachers need time to prepare their classes, to correct papers, to be available to students. Other tasks directly take away necessary time for quality services.

Another impact of the adjustment studied in this report are the reductions in the inversion funds for the school premises and the "soft" portions of the education budget, that is, those not protected by contract obligations with the teachers' unions. The analysis of the budget structural changes shows that there was a reduction of the proportion of funds allotted to school buildings and also for school supplies.

The way the adjustment has affected the education sector seriously curbs its development. Since short-term recuperation is not a likely perspective, it is possible this weighs heavily upon this sector in the future. This means a neck bottle for the development in this region. Unless substantial reforms in the education policies are not sought, reductions in the supply of education will be one of the costs of the external debt. This in turn will impede the training of qualified manpower essential for the economic development which would allow this region to free itself of the load of its debt. The state cutbacks in education possibly affect those who are most in need of state assistance for access to education (that is, the poorest groups). It must be emphasized however that limiting the access of these groups to education is not inevitable, it is a state option. These financial restrictions can stimulate new ways of thinking and managing the education development. The essential point is that governments go on granting high priority to education development above other sectors of state implications, as an investment in a long-range development.

Future challenges

This adjustment phase will be felt by Latin-american countries at least until the end of the century and the political economy due to this process will translate itself by severe education cutbacks, especially in certain areas (for ex., in primary education, investment funds, scholarships and teaching materials). This presents a whole new scenario which may threaten the efficiency and equity in the supply of education. It is important that educational system go from the relatively reactive and passive phase observed the last decade, to more leadership so the future adjustment processes include a long-term perspective and give priority to the formation of human resources. To answer these new challenges will require taking creative initiatives.

The first challenge is a school-age population on the increase. While the number of children between the ages of 6 to 11 enrolled in primary schools was higher than the same age group in the sixties and seventies, the gap

[24] Prawda, J., 1989. *Logros, inequidades y retos del futuro del sistema educativo mexicano*. Mexico. Ed. Grijalbo, p. 197.

[25] Corvalán, A. 1990. *El financiamiento de la educación en período de austeridad presupuestaria*. Santiago, UNESCO/OREALC, p. 40.

[26] Husén, T., 1987. Policy impact of IEA research. *Comparative Education Review*. 31 (1):29-46.

Table 5

GROWTH RATE OF CHILDREN BETWEEN THE AGES OF 6 TO 11 ENROLLED IN PRIMARY SCHOOLS AND OF THIS POPULATION GROUP BETWEEN 1980 AND 2000

(Number of children by thousands)

Country	Enrollment		Growth	Estimate	Children 6-11		Estimate	Out of school
	1980	1985		2000	1980	1985	2000	2000
Argentina	3 046	3 545	0.03	5 588	3 203	3 722	3 994	
Bolivia	777	875	0.02	1 250	897	1 037	1 395	145
Brasil	12 858	14 187	0.02	19 056	17 564	19 087	22 617	3 561
Chile	1 348	1 287	–0.01	1 120	1 505	1 450	1 496	376
Colombia	3 197	3 104	–0.01	2 841	3 909	4 087	4 555	1 714
Costa Rica	297	313	0.01	366	333	373	429	63
Cuba	1 323	967	–0.06	378	1 355	1 032	1 141	763
Ecuador	1 191	1 299	0.02	1 685	1 356	1 490	1 977	292
El Salvador	517	519	0.00	525	796	869	981	456
Guatemala	581	737	0.05	1 504	1 176	1 379	1 806	302
Haiti	319	500	0.09	1 925	872	914	1 103	
Honduras	444	574	0.05	1 240	672	765	1 121	
Mexico	11 767	12 816	0.02	16 558	12 701	12 751	15 374	
Nicaragua	312	397	0.05	818	494	571	782	
Panama	281	287	0.00	306	318	324	325	19
Paraguay	400	446	0.02	618	509	570	817	199
Peru	2 399	2 955	0.04	5 523	2 774	3 032	3 391	
Dominican Rep.	785	866	0.02	1 163	946	975	1 194	31
Uruguay	258	294	0.03	435	311	323	328	
Venezuela	2 014	2 277	0.02	3 291	2 360	2 622	3 289	

Source: Lockheed and Verspoor. 1989. Statistical Appendix. Growth rates estimated as compound rates.

between these two growth rates has been reduced in the eighties. An increasing school-age population means that the enrollment increase must exceed the population growth to reach universalization of access to education.

Table 5 shows that if the number of children between the ages of 6 to 11 and enrolled in primary school go on increasing until the end of the century at the same rythm, as between 1980 and 1985, by the year 2000, there will be 7 921 000 school-age children without access to education in Latin America. The following countries have not reached universal primary education: Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Haiti, Panama, Paraguay and the Dominican Republic. This means these countries must accelerate their progress in the expansion of their education supply simply to catch up with the population growth.

However, the necessity of a quantitative progress is only one of the challenges the education systems in Latin America have to face it they wish to effectively answer Jomtien's appeal. Another persistent problem is the one of education quality. Low-quality education holds consequences for the external and internal education achievement. The problem is especially severe in the lower levels of the system, as large segments of the population are impeded the access to high-productive jobs or to university education, where admission is

granted on the basis of entrance examinations of academic performance.

Not only must education systems assume responsibility for failures but also for school dropout. In some countries, repetition is traditionally considered being due to the school system and dropout the result of a student socio-economic conditions. This is an out-dated theory, false and certainly inadequate in these times of economical crisis which Latin America is experiencing. It is out-dated because it believes the ancient theory which defines education opportunity as being able to go to school; as discussed previously, a modern and more appropriate conception is to see it as the opportunity to learn, and as such, should be measured by the achievements and performance of the children, if they complete the whole cycle and how much they have really learned. Seen this way, repetition and dropout are not independant processes. Low-quality education, shown by high repetition rates, increase the costs of putting a child through school and leads many children to dropout. Finally, is important that the specific circumstances of the adjustment include as internal efficiency of the education system, the academic pursuit (understanding repetition, and dropout as being susceptible to the influence of the school) and learning. This is especially important so that the state adjustment processes are designed to promote an integrated development (and not dual) which gives to all citizens a minimal common base of shared knowledge and values.

In spite of the education systems regional characteristics, there still exist sufficient heterogeneity between and within these countries to call for education policies and reforms designed to answer the specificity of each one, however common structure characteristics within the systems allow some general guidelines. The following recommendations are directed to the regional general aspects, instead of the peculiarities.

Some important short-term solutions can be found out of the educational sphere, within the field of macroeconomical and political options.

In so far as Latinamerican countries succeed in adjustments with growth (for ex., by increasing their revenues through exports, by reprogramming more favourably the repayment of their external debt, or by negotiating effective reductions of this debt) pressures will be reduced upon education. Another macroeconomic line of actions are tributary reforms increasing the contributions by those with higher incomes. However, due to the experience of the eighties, it is unlikely that public education expenditures increase significantly.

The main part of the solution will have to come from the education sector. More than just responding to external limitations, this sector must find a way to counteract with humane contributions to the adjustment. The international community can support such initiative stemming from the education administrative systems. In this report I shall expose briefly a line of options relating to education management and another of suggested contributions by which the international community can support these national reform processes.

Planned long-term recovery
Designed education plans for development

One of the first tasks facing those responsible of a country's education management is to define their objectives. This imply going beyond the usual national rethoric in education and ask which will be specific skills, attitudes and acquisitions needed nationally in 15-20 years. Today's school children are the political, economical and social actors of tomorrow. The fact that they share a minimal common base of knowledge and values will be due to a large extent to what the education system does or does not do. In Latin America exists enough proof of the political and social costs of dual styles of development, by which a large segments of a society are excluded from the education process. Latin America will survive the changes set forth by an increasingly competitive world –the presence of an developing Asia and an united Europe– only if its economical and social choices included the use of its ma-

jorities potential. Political violence deviates creative and productive efforts and should be avoided, not by repression, but through the integration of all to societies which stimulate creativity and effort, to economical systems which can compete successfully on the world market and this will be attained through an "education for the integration".

This means the educational problems of whatever Latinamerican country is a challenge for all the others, just as West Germany has taken the responsibility of the professional training of the East Germans and that developed countries in the European Community wish to help nations such as Turkey to rapidly develop their education system. As such, education is a powerful tool to help move forward.

There are important questions to be answered such as which political future these countries wish for themselves? The strenghtening of democracy in Latin America will require the initiation of dialogue with all social sectors (the industrials, the Church, the workers, the political parties, etc.) so future scenarios may be defined. Most of all, it is important that such discussions resist populistic tendencies and transcend short-term perspectives as to reach a cohesion of realistic options sharing a vision of the future human base of the country. Capable educational leadership should translate these scenarios into lines of action inspiring educational reforms.

Moreover an increasingly interdependant world, such reforms should avoid petty closed-minded views and make use of referential guidelines prepared by the international community, such as at the World Conference on Education for All, in Jomtien, Thailand, in March 1990. International forums hold increasingly more importance and reality for the sharing of experiences and the stimulation of education development. For ex., in March 1990, the UNESCO Policy Division held, jointly with the Mexican Education Secretariat, the International Congress on Educational Planning and Management where the role of planning in an austerity context was discussed.[27]

Central themes that come up when analysing the Latinamerican economical crisis are those of employment and productivity. Unemployment has increased as a result of policies designed to reduce internal demands end as such, unemployment should be one of the focuses upon which education programs should be replanned. Another objective should be to train manpower so that export industries can increase their productivity and compete on international markets.

One proposition that was brought up at Jomtien is the drawing-up of new participants in the education process. One of the main areas of education reform is the flexibility of the Ministry of Education to promote, facilitate and coordinate the greater participation of new segments of society and new educational initiatives. Developing initiatives such as these at times when the State has less available funds, not forgetting the characteristics inherent to the economical crisis (for ex., the rise of unemployment) will require more joint projects based on the collaboration between the Ministry of Education and other governmental and non governmental organizations such as the Church and the private sector. The successful development of such initiatives needs no paternalistic nor authoritarian bureaucrats, but dynamic and innovative managers, able to coordinate, facilitate and promote such a new vision within the private sector.

This new style in planning, less unilateral and imposed will require deep changes and the evolution of new skills within the Ministries of Education. These should emphasize negotiation, dialogue and the will to regroup goodwills and promote the participation of wide sectors of society so that a humane adjustment can be found. Along with this new style of management, planning methodologies should emphasize the options to be considered in the debate and in the negotiation of education policies before trying to identify optimal solutions.

[27] For a summary of discussions at the Congress, see: UNESCO, 1990. *Planning and management of educational development. Final Report*. Paris. UNESCO.

More than just models of linear programming producing an optimal use of funds, sensitive analysis exploring the costs and the advantages of multiple scenarios should be considered in the solution of a problem. In this sense, Lourié proposes the concept of *strategic piloting* as an option of flexible political analysis being constantly reviewed as a result of the transactions and negotiations between the decision-maker and other groups related to this execution.

"We have suggested that the decision-maker team up with agents who can be at the same time analysts and operators. This way, the differences between 'upper planning' and its 'downward' projection is not as rigid as some years ago...

As they must adapt to the changes affecting constantly the relations between the ends and the means, those who take the decisions and the agents around them cannot follow a predetermined pattern, as they are compelled to try out a set of multiple options towards and objective revised and confirmed."[28]

Information plays an important assisting role in this strategic piloting. Opportune and adequate information is necessary to analyze educational policies in syntony with the education system. This implies just as much statistics (on school performance, total of students and teachers, buildings, enrollment rates, failures, dropout, expenses, etc.) as information gathered from research or the evaluation of innovative projects.

Such informative systems should be designed in a way that they allow the interaction of production factors, processes and educational products. These should not only contain information about what is being supplied to the student but also the quality of what is being given.

Information is a strategic and important way to maximize achievement and equity using less funds. The report of the United Nations Development Programme states that the countries which have most successfully protected the human element from the impact of the adjustment have characterized themselves by "a systematic and careful monitoring of the human and economic variables. Reliable and actualized statistics were essential to the designing of appropriate and opportune policies".[29]

This type of information includes the analysis of the education sector, investigations upon the contribution of education (of different education programs and levels) to productivity and employment, descriptive studies of the education system (who are the students, teachers, what is happening in the schools) as also analytical reports explaining the contribution of various factors (school buildings, teachers' training and experience, their performance in the classroom, ways of supervision) to school achievement. It is important to develop national systems of evaluation of the education quality (with valid and tangible exams of academic performance), monitoring how much are learning the students and identifying factors which can maximize such learning. For example, in Chile such a system was recently applied which identified the schools with lowest achievement, thus allowing administrators and supervisors pay attention to those needing it most. Costa Rica also set up, in 1986, an academic performance evaluation system.

Another type of strategic information for education planning and management is the one relating to costs of the various production factors (cost of training and salaries of teachers, of school supplies and buildings) as also concerning the teaching profession and students, which are usually known as educative statistics including promotion, dropout and repetition indicators, as also the number of schools and teachers by region.

The relevance of an updated and efficient system of statistical information is obvious in so far as it provides evaluation indicators of the state in which the education system is and for a follow-up of the effects of the policy changes.

[28] Lourié, S. "Hacia un pilotaje estratégico de la educación". *Perspectivas*. (70)2:275-286.

[29] United Nations Development Programme. *Human Development Report 1990*. (New York. Oxford University Press), p. 36. *(Author's translation)*

There exist nowadays low-cost computer systems for the analysis and projection of education statistics minimizing the number of middlemen between those making the decisions and the automatized processing systems. This fact, added to the rapidity of processing and the reduction of the costs of micro-computer simplify the systematic actualized use of statistics within the discussion and the elaboration of educational scenarios and plans.

However, a statistical information system will be useful only if the material is reliable and valid; quality information should be actively processed and should not be delayed until the moment that reduction of funds may have affected the service of the investigation and statistical units.

It may also happen that the usual methods of education statistics be inadequately prepared to detect precisely, substantial changes, such as those produced by the adjustment, for example. Many official statistics (on literacy, enrollment) are based upon basic projections, with periodical checking (every two or five years) of readjustment; this is the better adapted in a stable context (or of sustained growth), more than one characterized by changes in previous tendencies, as when an education system starts deteriorating. In such cases, specially designed sample surveys would be more appropriate to find out the effects of the adjustment, the characteristics of the educational deterioration or simply the functions of the system within a new context of budgetary austerity. An additional problem could be the difficulty to collect data or information of any kind in some regions of countries where the adjustment and the economical crisis have led to political violence.

The development of these information systems should reinforce the decentralizing processes and the participation of various sectors to the discussions concerning education policies; they should not reinforce the Latinamerican centralizing tendencies which have atrophied their governmental administrative capacity. This will strengthen the new negotiation and concertation style mentioned earlier. This will also raise the quality of information and its use in state policy decision-making.

In the traditional ways of statistical collecting, school directors were tired of compiling endless files, of little use and no more than a bureaucratic task to them. An information system designed to stimulate analysis and research would initiate a *devolution* process of processed information to school directors - indicating, for example, school production factors which are associated with better academic achievements. This type of information, joined to an increase of the school director managerial power would allow a more efficient use of funds he administers. For example, if the analysis shows that certain pedagogical practices are more effective (for example, the frequent correction of homeworks) the director could share such information with the teacher to better the performance of the school.

Others who will benefit from the findings of the analysis of such information are the parents, who could be kept informed of comparative achievement between shools or of home practices which could improve the academic performance of their children, as an incentive to get more involved in the improvement of services of their children's schools.

Generally, this information should be sought to stimulate the involvement in decision-making of those with less political power; for ex., the distortion of educational funds favoring only the most privileged groups should be made known, so that society, as a whole, promotes just solutions.

These systems could also integrate the education sector with others such as health, social security, producing data basis allowing the analysis and design of useful policies promoting the participation of those most affected by the adjustment (the poorest).

Propositions to the international community for the support of education reforms in Latin America

One way to reduce simultaneously the pressure of the debt and also provide the necessary funds for the proposed initiatives is to establish

special funds en Latinamerican countries financed with "*debt-equity swaps*". These swaps were initiated in Bolivia, Costa Rica and Ecuador as "deuda-naturaleza" exchanges. These consist in debt-reduction schemes for the exchange of debts acquired on a secondary market in national currency at 100% of the debt's nominal value. International agencies could buy the debt on secondary market and with it establish funds in national currency. As to promote equity, the projects financed in such a manner should be those creating education opportunities for the poorest and groups most affected by the recession and adjustment programs.

In so far as Latin America's debt has greatly reduced its value on the secondary market (on average, between 1982 and 1986, the value of the debt was 70% of the nominal value, in November 1990 this average was 27%) there is a lot of space to create such funds. An agency or international foundation could buy an X quantity of debt on the secondary market –for example, Argentinian debt at 13% of its nominal value, Brazilian debt at 22% of its nominal value, Ecuatorian, 15%, Peruvian, 4%, Panamian, 11% or of Costa Rica, 33% of its value- and donate it to a foundation in the country which would efficiently provide education to the most marginal groups (let us say the Fe and Alegría schools). This foundation then exchanges this debt into national currency at the Central Bank (or in bonds in national currency) at the value most closest to nominal value, may be between the nominal and the one existing in the secondary market. The foundation can then sell these bonds on the stock market or invest them and with the interests finance educative activities. This plan could help the government reduce its external debt (which must be served in currency) using national currency; this allows the agency or international foundation to multiply the effect of the donation (the difference between the price of the debt on the secondary market and its value in local currency) and the national agency (the Fe and Alegría schools) to dispose of funds for its activities.

There have already been sufficient experiences in Latin America with such schemes to develop this initiative without making too many errors. One past lesson, for example, is to avoid the inflationary effect of the swap if the government completely changes its debt for cash (this constitutes a problem only if the swapped quantities are important). It is better to swap it for treasury bonds and issue the cash only to cover the interests on the bonds. This dilutes the inflationary effect upon the bond's maturity date. For the time being, swapping is only possible for debt with commercial banks.

It is important that additional funds acquired in such a way do not *substitute*, but supplement, what the country can do by itself. Even when the definition of what a country can do by itself is ambiguous, there are existing mechanisms making it possible to increase the probability that this assistance be supplementary and not substitutive (for example, scholarships granted only to maintain previous efforts).

International agencies can also contribute in helping Ministries of Education to develop their analysis and managerial capacity, especially the capacity to analyze and reverse the impact of the adjustment in efficiency and equity in the supply of education. For example, the Harvard University International Institute for Development, through the BRIDGES project, has helped the Ministries of Education of various third world countries to develop the analysis capacity of their policies. United Nations organizations have also taken steps in this way. UNICEF, for ex., commisioned various studies on the effects of the adjustment on infancy at the outset of the eighties. The International Conference of Educational Planning and Management was under the auspices of the UNESCO's Policy and Planning Division in Mexico, in March this year. UNESCO Regional Office for Education in Latin America and the Caribbean (OREALC) has set up meetings and has published various documents to study this problem. Other international organizations could contribute to these efforts.

One area in need of financial and technical assistance is the setting-up of monitoring proc-

esses systems of the education system, which go way beyond enrollment figures, and include quality indicators and academic performance. Positive example of this type is the national evaluation of academic achievement system established in Costa Rica by the Ministry of Education, with the assistance of the World Bank. A similar type of system is being developed in Honduras with the assistance of the International Development Agency of the government of the United States.

The international community could help promote a humane adjustment, assisting the development of the education sector. Particularly, it could help bring together researchers and the regional decision-makers, contributing to process and present interestingly what is known. This could conduce to the evaluation and spreading of autochthonal innovations to problems such as the Escuela Nueva in Colombia or El Maestro de la Calle in Mexico. New research innovations should be built upon what already exists. One way of achieving this would be to start out by contacting and getting to know the research centers in each country associated to the Latinamerican Network of Education Studies (REDUC). Just as it is important that Latinamerican investigation and design of policies renounce their provincialism and take into consideration other countries and region's experience, it is also important the policy recommendations made by institutions such as the World Bank take into consideration the specific experience and regional knowledge of these countries.[30]

I would like to conclude mentioning again that to a large extent the effects of the educational crisis in Latin America are not due to the crisis itself, but more to the reduction of this sector's negotiation capacity and of certain areas within it. To respond effectively to Jomtien's challenge requires the strenghtening of this negotiation capacity and the political concertation -within, and outside the education sector, with internal and external support- so the long-term horizon becomes important in the definition of public social polices.

[30] For ex., the World Bank's New Educational Policy document (*A World Bank Policy Paper. Primary Education*, 1990. Washington, D.C. World Bank) bases itself on an extensive review of educational research (Lockheed, M. and A. Verspoor. *Improving Primary Education in Developing Countries*. Mimeo, 1989) which does not contain any bibliographical reference in Spanish (even though some data refer to Latin America and some research on this region in English). When I mentioned to the authors of this report they were leaving out important data produced in this region, they answered they didn't read Spanish. Fortunately, they do however read French, which helps expand the base of data upon which such an important political document is based.

THE EDUCATION OF CHILDREN AND YOUNG PEOPLE WITH DISABILITIES. PRINCIPLES AND PRACTICE

Seamus Hegarty

Disabled persons constitute an alarmingly high percentage of the population, particularly in developing countries. It is estimated that more than 500 million people in the world are disabled as a consequence of mental, physical or sensory impairment.

A series of international reports estimate that at least one child in ten is born with or acquires a serious impairment, which if no attention is given, could impede the development of the child. Many children with disabilities in developed countries receive special attention, through education and training. However, the situation is indeed more alarming in developing countries, where most of the world's children live, and very little is done to prevent either the occurrence of the impairment, or its damaging consequences.

About 80% of the estimated 200 million children in the world with disabilities are living in developing countries and very few receive good health care and education, and less than 2% receive special services of any kind.

The bleak international assessment is based on a series of reports across the continents. To understand these realities one need only visit any of the villages of Asia, Africa, Latin America or the Middle East, or any of the slums surrounding the cities in these areas. There one learns that along every road and path, in every cluster of dwellings, there are children who are being denied the possibility of personal development because they suffer impairments and because they are no receiving the benefits of the knowledge and skill that exist.

Certainly, the precise figures of disability estimations could be debated, however, one thing is clear, the need is there. This need is further compounded by poverty and underdevelopment but also by wars leading to devastation, creating a considerable social, economic, and emotional cost to the disabled person, their family and the wider community.

To improve the situation will require time but it primarily requires a commitment and a political will to bring about change –change of human attitudes and behaviour, the integration of new concepts into human service programmes, and the modification of development strategies.

On a more optimistic note, it can be demonstrated that many needed forms of assistance can be rendered through the appropriate application of resources already available to many of the families and communities in developing countries.

A modest enrichment of existing training programmes and basic health, welfare and education services can expand their coverage to include children with disabilities. In fact it is only through such improved application of existing human resources that there can be any hope of giving effective help to the millions of children affected, or in danger of being affected by disability.

Conscious of the magnitude of the needs and the limited resources, and bearing in mind the principles of normalization, integration, and participation, advocated by the World Programme of Action Concerning Disabled Persons, the UNESCO Consultation on Special Education (1988) recognized integrated education and community based rehabilitation as two

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complementary approaches in providing cost effective and meaningful education and training for disabled persons. Both measures aim at reaching out to the greatest number of disabled persons and their families. They are two vital components of a comprehensive global strategy.

The process of change will succeed best with the initiative of Goverments and the participation of intergovernmental and non-governmental international organizations, bilateral aid programmes, voluntary agencies and community groups in the countries concerned.

A reality which must be assumed

Children and young people with disabilities need education no less than their peers. Yet, around the world very many of those with disabilities receive little or no education.

All children have the right to be educated. One of the tragedies of our time is that very many children are not educated -and have no opportunity to go to school. This is compounded by the scarcity of educational opportunities in adult life.

The failure to provide education for all children ranks alongside famine and war as a major indictment of the current political order. It is also a significant challenge to it. A world with the technological and economic resources to achieve instantaneous global communication and put people into space can hardly say that educating all its children is impossible.

This challenge has all the more force where children and young people with disabilities[1] are concerned. Those with disabilities, who ironically have the greatest need of education, are the least likely to receive it. This is true of developed and developing countries alike. In developed countries many children with disabilities are formally excluded from the education system or receive less favourable treatment within it than other children, whereas in many developing countries the struggle to develop compulsory education for a majority of children takes precedence over meeting the special educational needs of those with disabilities.

Precise figures, particularly for developing countries, are difficult to establish but some studies are available which show the distressing scale of the problem. Ross (1988) summarized data gathered from 13 countries in eastern and southern Africa. Table 1 shows that virtually all the countries had special education enrollments for approximately 0.1% or fewer of the school age population.

Table 1

NUMBER OF SPECIAL EDUCATION ENROLLMENT IN 13 AFRICAN COUNTRIES AS A PERCENTAGE OF THE SCHOOL AGE POPULATION

Percentage	No. of countries
Less than 0.1	7
Between 0.1 and 0.2	4
More than 1%	1
No information	1
	13

(Adapted from Ross, 1988)

A broader UNESCO survey conducted in 1986/7 found that 34 out of 51 countries (drawn from all continents) supplying information had fewer than 1% of pupils enrolled in special educational provision (UNESCO, 1988a). Table 2 shows that 10 of these 34 had special educational provision available for less than 0.1% of pupils.

[1] A precise definition is not being offered here. Terminology and categorisation vary widely from country to country. The target group includes those who have physical or sensory impairments, those who in comparison with age peers have difficulties in learning and communication and those whose behaviour cannot readily be contained in ordinary schools. What they have in common is a greater or lesser need for special educational provision over and above what the ordinary school offers to the generality of pupils. Estimates of the size of the group range from 10% to 20% of the school-age population.

Table 2

NUMBER OF PUPILS ENROLLED IN SPECIAL EDUCATION PROVISION AS A PERCENTAGE OF SCHOOL AGE POPULATION

Range (%)	No. of countries
Less than 0.1	10
0.1 - 0.4	13
0.5 - 0.9	9
1.0 - 1.9	6
2.0 - 2.9	6
3.0 - 3.5	5
More than 3.5	2
No information given	7
	58

To appreciate the full significance of these figures we need to set them against estimates of the need for special education. A major United Kingdom government report (DES, 1978) recommended for planning purposes the assumption that "about one in six children at any time and up to one in five children sometime during their school careers will require some form of special educational provision". This concurs with an earlier United Nations estimate that 15% of children needed special education or rehabilitation measures of some kind, and that this proportion was higher in developing countries (U.N., 1976).

The stark reality underlying these figures is that the great majority of children and young people with disabilities do not receive an appropriate education –if indeed they are offered any education. In many countries, less than one child in a hundred receives the special educational provision that she/he needs.

UNESCO has had since the early 70s a major commitment to improving the provision of special education around the globe. In 1971 it published its first study of the present situation of special education. This study was updated in the late 80s (UNESCO, 1988a). This commitment has been addressed particularly to action in developing countries, and major projects have been supported in African and Asian countries.

The two-year programme for 1990-91 proposes to address the special educational needs of children and young people with disabilities through an integrated education approach and community –based programmes. The proposed action will cover three main areas: planning, organization and management of special educational provision; teacher training for integrated education of children with disabilities; early childhood disabilities - identification, assessment and intervention.

The purpose of this paper is to contribute to the improvement of special educational provision by setting out the basic principles governing education for those with disabilities and drawing attention to strategies that policy makers can adopt to secure appropriate provision.

Basic Principles

The basic principles underlying special education are very simple. Translating them into practice may be far from easy, but there is broad agreement on what they should be. The principles can be formulated in various ways. Here they will be set out in terms of three rights: the right to education; the right to equality of opportunity; the right to participate in society.

The right to education

The right of all children to education is enshrined in the United Nations Declaration of Human Rights and reiterated in many national policy statements. Regrettably, millions of children are not accorded this right. This fact does not weaken the right or reduce its relevance; indeed, it makes action to secure its universal implementation all the more urgent. Children with disabilities are a major group for whom this right has still to be won in effective terms. Many countries –and educational policy makers– simultaneously accept the UN Declaration guaranteeing education for all and ex-

clude children with disabilities from education. This is, to say the least, illogical. Either the UN Declaration is accepted in its sweeping simplicity and children with disabilities of whatever kind are brought into education, or the Declaration should be modified and tinkered with so that it fits the exigencies of current practice.

It is important to bear in mind that the right to education is a fundamental human right, something which each person has in virtue of the fact that they are human beings. In other words, it is not dependent on vocational or economic considerations. Education does of course make people more employable in a general way and can enhance their capacity to contribute to the economic well-being of the community, but neither of these is the reason why they are *entitled* to education. At a time when public expenditure is increasingly governed by market forces and instrumental views of education prevail, it is easy to lose sight of the inherent nature of the right to education. This is particularly significant where people with disabilities are concerned. Education may not succeed in making some people employable or economically self-sufficient, but that in no way reduces their entitlement to the resources that their education requires.

The right to equality of opportunity

Equality of opportunity raises very difficult questions. Like the right to education, the right to equality of educational opportunity is widely accepted as a general principle and largely ignored in practice. The problem here is greater than the customary gap between rhetoric and reality that is imposed by scarce resources and limited vision. Even where there is a commitment to implementing this right, it can be difficult to establish what is required in practice.

Equality of opportunity does not mean treating everybody in the same way. Thus, in education equal educational treatment is not the answer. Children are not the same and should not be treated as if they were. Indeed, the principle of justicie requires that they be treated unequally. As a simple example, consider the education of blind children: if equal treatment means being exposed, along with peers, to teaching with a high visual content, this is manifestly not giving them equality of educational opportunity. What is required is a means of translating the general principle of equal opportunity into concrete rights that are meaningful at the level of actual educational provision. This is given in part by the notion of differential educational treatment. Since children are different from each other, they must be treated in different ways in order to reach common goals. This brings the general principle down to the domain of practical decisions about pedagogy and resource allocation. These decisions can be extremely difficult in practice, particularly when teaching expertise and resources are in short supply. Some such framework, however, is essential both to moving advocacy for special education beyond placid generalities and to ensuring a meaningful place for special education at the level of actual educational provision.

The right to participate in society

This right is often expressed in negative terms -people should not be discriminated against or suffer restrictions on their lives over and above those common to other people. In education it has become commonplace to speak of educating children in the "least restrictive environment". These negative formulations abound because barriers and obstacles to participation are more evident and easier to pinpoint than actual participation.

As far as education is concerned, the right to participate means that children must not suffer needless restrictions in their access to education, in the range of curriculum on offer or in the quality of teaching they receive. They should not, without good reason, be educated separately from their age peers. Expressed positively, this means that children have the right to

attend ordinary schools and to participate in the normal activities of the school alongside age peers unless there are specific reasons to the contrary. Where it is judged necessary to educate children in a segregated special school, care must be taken to ensure that the nature of the education on offer matches the mainstream curriculum as much as possible and that the quality of teaching is at leat as good as it would be if they went to an ordinary school.

Strategies to improve the provision of special education

This section sets out a number of strategies which policy makers can adopt to improve the provision of special education in their countries. The topics covered are: legislation; administrative support; educational provision; early childhood education; preparation for adult life; parental involvement; training; research and development.

Much of the information on current practice at national level is drawn from a UNESCO survey conducted in 1986/7 (UNESCO, 1988a). This will be referred to as the "UNESCO Review".

Legislation

It may seem odd to start with legislation as a key strategy for improving special educational provision. Legislation is couched in generic terms and can be very distant from the point of implementation. There are several reasons, however, why appropriate legislation is of paramount importance. First, it can articulate and reinforce a country's policy on special education. Educational and social policies are usually more detailed and flexible than the legislation if any that underpins them. A legal framework can, however, hold the different elements of policy together, clarify ambiguities and resolve tensions between them.

Secondly, legislation can help to secure resources, or the appropriate channelling of resources. Thus, legislation can be used to target expenditure on certain groups of children, it can require that provision be supported by certain administrative structures, it can insist on certain levels of teacher training and it can require that special educational provision be made in ordinary schools.

Passing laws of itself achieves nothing, and legislating for these desirable outcomes is in no way to guarantee that they will be realized. This brings in two further functions of legislation, viz to draw attention to any discrepancies between policy and practice, and to give ammunition to those who seek change. Take parental involvement in decision-making, for example. There is a lot of rhetoric about taking account of parents' views but in practice they are often ignored. Legislation that guarantees their right to be consulted on their child's assessment and any decision taken as a consequence can help to narrow the gap between rhetoric and practice by ensuring that parents are truly partners in the decision-making process. Without this legislative support parents are dependent upon the goodwill of professionals and have no effective redress in the event of disagreement.

Finally, legislation can help to change attitudes. What is required by statute has more *status* than what is optional. A country that legislates for special educational provision confers legitimacy on that provision and makes it more likely that professionals, parents and the public will view it in a positive way.

It is worth noting that most countries in the UNESCO Review had legislation of some kind concerning the education of those with disabilities. (In a few cases pupils with disabilities were deemed to be included in the general legislation on education for all pupils.). Two-thirds of the countries referred to new legislation under discussion or about to be introduced. This ranged from losely formulated discussion of the need for various legislative developments to definite plans to introduce regulations governing specific aspects of educational provision. A wide range of topics was covered: early intervention, family support, new curricula, developments in general education to fa-

cilitate integration, teacher training and administrative responsibility for mentally retarded children.

The Review noted the different legislative baselines of the different countries but identified two tentative trends none the less: a general acknowledgement of the need to underpin developments in provision with appropriate legislative action; and a tendency for the frameworks for special education and general education to move toward each other, albeit slowly.

Legislation in education is no panacea, and it would be easy to pick out examples where legislation has had a negative impact. There can be little doubt, however, but that appropriate legislation is an essential tool in developing and maintaining an effective education system for children and young people with disabilities.

The key elements of appropriate legislation have been implied above –clear statement of policy, coherent framework for provision, conduit of resources and guarantee of consumers'rights. In addition, special education legislation should be based on a correct understanding of disabilities and their educational implications. There is a great deal of outmoded thinking on disability and special education, and it is very unfortunate when these defective understandings are built into legislation. National legislation must take account of a country's stage of development, but limited resources do not justify adopting laws that will lead down blind alleys and foster inappropriate forms of provision.

Finally, legislation must be enforced. Instruments are mere ornaments unless they are used. Legislative instruments likewise must feed into practice. Thus, provision must be made for implementation and monitoring if legislative action is to have its intended effect.

Administrative support

The administration and organization of special education raise particular problems. These stem from the multiplicity of tasks to be carried out, the dispersion of responsibility for them and, in many countries, the diversity of funding sources. Special education extends beyond education into health, social welfare and rehabilitation. As well as teachers, it involves psychologists, health workers and therapists.

The UNESCO Review found that education ministries were responsible for special education in most –though not all– cases. (Social affairs ministries were the usual alternative.) Frequently, however, this was not an exclusive responsibility: various responsibilities were vested in other ministries or shared with them. Thus, health ministries were often responsible for pre-school provision and labour ministries for vocational training and rehabilitation. In some cases particular groups of children were the sole responsibility of ministries other than education –eg mentally retarded children (health or social affairs), delinquents (justice).

The most common administrative arrangement was to have within the ministry of education a separate department dealing with special education. Generally the special education system ran parallel to the mainstream system, with modifications as judged necessary, and the function of the special education department was to provide the administrative structure for this parallel system. In some cases, the age range was divided up differently in the two systems, or the special education system extended over a longer period of time. There were other organizational models. In some cases, special education was subsumed under the department dealing with primary education, reflecting the main thrust of provision. In other cases special education was administered as part of the general system, without any separate administrative structure.

About one-third of countries had a special education co-ordinating body at national level. These bodies had representatives from various government departments and non-governmental agencies concerned with special educational provision. They were charged with maintaining an overview of developments relating to children and young people (and sometimes adults as well) with disabilities.

The importance of appropriate administrative support for special education is twofold: it

shapes the nature of the provision made, and it provides the co-ordination that is necessary.

The impact of the administrative arrangements on the nature of provision can be seen clearly in relation to integration. When special education is administered quite separately from the general education system, it is difficult to achieve much integration at the level of practice. Even if the policy is in favour of integration, the separation of funding, teacher supply and curriculum that is entailed by separate administrative arrangements place major obstacles in the way of implementing the policy.

This example shows that administrative structures are not neutral in their effect. They create the framework within which educational provision is made but also determine the nature of that provision to an extent. This framework can facilitate or obstruct setting up certain types of provision, and so can determine whether or not policy objectives are met.

The co-ordinating functions of administration are wide-ranging where special education is concerned. They can encompass planning, resource allocation, the supply and training of personnel, buildings, materials and transport in addition to co-ordinating the different service elements. In many countries these functions entail activity, and corresponding administrative structures, at national, regional and local levels.

Financial arrangements impose another layer of complexity. While state funding is the predominant source of financing for special education, funding is also supplied by voluntary bodies, parents and, in some developing countries, aid programmes and international organisations. In many countries voluntary bodies, while no longer providing substantial funding, have through their legacy of past initiatives a central role in organising educational and other provision for those with disabilities.

These various factors combine to underline the importance of having a strong and coherent administrative structure. When basic educational services are missing or inadequate, it can be tempting to disregard the need for administrative support. Expenditure on administration must be kept in proportion of course, and subject to regular review, but it would be shortsighted to scrimp on it unduly. An effective and appropriately resourced administrative service is essential to getting best value from the resources that are available and ensuring that they are expended in accordance with policy objectives.

The UNESCO Consultation on Special Education attached major importance, for all countries, to the development of a realistic national plan, based on a clear statement of resources including personnel and backed by a national commitment at the highest decision-making level. Particularly within developing countries, resources are unlikely to be available to do everything that might be desired. Choices have to be made, affecting different disability groupings, age ranges, linguistic and cultural minorities, urban and rural dwellers, and so on. An important function of the national plan is to set priorities between competing claims. When resources are limited, rough justice may be all that is possible, but it is better that the criteria on which decisions are taken be made explicit so that they can be seen to be justified or challenged if not.

Educational provision

The whole point of special educational provision is to ensure that children and young people with disabilities receive an appropriate education, and everything within the underlying system must be directed to achieving that. This can be considered in terms of the curriculum and in terms of the schooling and other structures needed to translate the curriculum into practice. Underlying both sets of considerations is the central principle of integration.

First, consider the schooling and other structures required to deliver education. The predominant form of provision currently is segregated special schooling. This is evident from Table 3 which presents the summary of provision reported in the UNESCO Review.

Table 3

NUMBER OF COUNTRIES USING DIFFERENT FORMS OF EDUCATIONAL PROVISION

	Countries	Total
Day special schools	54	58
Boarding special schools	53	58
Special classes in regular schools	44	58
Support teaching in regular classes	37	58
Schools in hospitals	31	58
Schools in other institutions	28	58

When this is set alongside the figures in the Introduction showing how few children with disabilities receive an appropriate education, the limitations of existing schooling structures become very plain. It is difficult to see how they can meet the enormous shortfall in provision. These considerations led the UNESCO Consultation (UNESCO, 1988b) to the bald conclusion:

"Given the size of the demand and the limited resources available, the education and training needs of the majority of disabled persons cannot be met by special schools and centres".

This conclusion if accepted has major implications for special schools and ordinary schools alike. Special schooling is not the answer to the shortfall in special educational provision. Moreover, the resources currently devoted to special schools which serve a relatively small number of children need to be examined in the context of the widespread failure to make any special educational provision for large numbers of children. Ordinary schools too must come under scrutiny. The reason special schools are established is to cater for children that ordinary schools fail. Ordinary schools that continue to be inadequate can hardly be offered as a serious alternative to special schools.

The way ahead to be by bringing about change in both special schools and ordinary schools. Ordinary schools have to develop their teaching and curricula so that they cater for a greater diversity of pupil need than at present, while special schools must develop and outward looking stance and take on significantly new roles.

In an ideal world there would be no special schools since every child would receive an appropriate education in a local community school. No country is near achieving that goal apart perhaps from Italy, and it has to be assumed that special schools will feature on the map of special education for some time to come. But that does not mean they can continue unchanged.

Special schools have many advantages - concentration of expertise in teaching pupils with various disabilities, modified curricula and programmes of work, adapted buildings and equipment, training opportunities for staff, links with local employers and post-school training agencies. These are the very things whose absence in ordinary schools makes them ineffectual in educating pupils with disabilities. The challenge to special schools then is to find ways of sharing their expertise and resources and embedding them in a wider educational context.

Some special schools have already begun to develop outreach programmes. This can entail setting up working link with neighbourhood ordinary schools where staff and pupils are shared. Some special schools act as resource centres, providing information and consultancy to local schools, organising support services for families and contributing to in-service training activities. Discharging these functions successfully requires considerable changes within special school staff. New skills must be developed and attitudes fostered. Transmitting a skill to others is not the same as exercising it oneself, and operating across several schools or in the community is very different from working in the closed confines of a single special school. The most important changes required are attitudinal: staff who are jealous of their autonomy and intent on maintaining lines of professional demarcation will not set up effective collaboration. There must be a willingness to move beyond existing institutional

bases and any *status* that may go with them and to work cooperatively in whatever new structures may be advised.

The upshot of all this is that special schools of the future could be very different from now. The emphasis would move away from educating limited numbers of pupils in relative isolation and toward acting as resource centres. The latter could encompass curriculum development, in service training, the collection and evaluation of equipment and computer software, specialist assessment, as well as advice and consultation on all matters relating to the education of pupils with disabilities.

These resource centre functions are important in improving the standard of special educational provision regardless of where it is provided. By capitalising on available experience and establishing a bank of information, materials and expertise, this offers a powerful model for making best use of frequently limited resources.

If special schools have to make changes, ordinary schools have to undergo revolution. Ordinary schools have generally failed pupils with disabilities and major school reform is necessary before they can make adequate provision for them. This reform must operate at two levels: the academic organisation and curriculum provision of the school; and the professional development of staff. The former requires rethinking the ways in which pupils are grouped for teaching purposes, the arrangements that schools can make for supplementary teaching and the modifications to the mainstream curriculum that teachers can make so as to give pupils with disabilities access to it. All of this forces major change in teacher behaviour. Attitudes, knowledge and skills must all be developed to create and sustain a new kind of school where those previously disenfranchised are given an equal treatment and narrow concepts of normality are discarded.

Early childhood education

Experience in a wide variety of settings has shown the importance of early childhood education. The absence of appropriate stimulation in infancy and early childhood ranks alongside malnutrition and poverty as a major source of disadvantage and retarded development. This is true of all children but is especially so for children with disabilities. If sensory perception is impaired, for instance, enhanced stimulation is required to compensate, but frequently what is offered is even less stimulation not more. Indeed, *the interruption of normal patterns of development arising from a disability is often more handicapping for the child than the direct consequences of the disability itself.*

Despite this the provision of early childhood education is very restricted. Half of the countries in the UNESCO Review acknowledged that they had limited or no preschool provision for children with disabilities. Where provision was available, it tended to be focussed on those with overt physical or sensory impairments. It was also concentrated on urban areas, so that those living in the countryside had very little access to provision.

The forms of provision most commonly reported were early intervention programmes allied to home teaching, preschool groups attached to special schools, and placements in nursery schools and classes for normal children.

Given the dearth of provision, almost any form of placement or support for early childhood education must be welcomed. There are two principles which should be given paramount importance, however: normalisation; and parental/community involvement. Even when children's development is very retarded, the developmental gap between them and age peers at this stage is relatively small –certainly in comparison with later– and every effort should be made to provide for them alongside peers and within a common organisational framework. As to involving parents and the community, this can hardly be over-stressed. Parents and the extended family are the principal, and in some cases the only,source of structured stimulation these children receive. Whatever little can be achieved by formal intervention, it can only be enhanced by being tied into

and made to reinforce family activities and community relationships.

A particular challenge arises from the fact that much early intervention is not statutory. Where state support is provided, there is an additional problem of coordination because of the multiplicity of agencies concerned. Given these circumstances, it is important that all concerned – voluntary bodies, staff, parents and state officials– develop a common policy and approach. Overcoming the disadvantages resulting from disability must be the paramount concern of all so that the limited resources commanded by early childhood education have maximum beneficial effect.

Preparation for adult life

Schooling is for all young people a form of preparation for adult life. The knowledge and skills acquired at school help them make their way when they leave it. For many young people the normal school curriculum is not sufficient preparation, whether it be for the world of work or for independent adult living, and specific preparation provided during the later years of school and subsequently is extremely beneficial.

All of this holds true in far greater measure for those who have disabilities. Many of these learn more slowly than their peers and may have limited academic achievements at the time of normal school leaving age. More significantly, a great many will not yet be ready for independent adult living. The conclusion to be drawn from this is not the traditional one that little can be done since independent living is a remote target, but rather that far more needs to be done precisely because existing support efforts have left this target so remote.

Regrettably, the amount of provision available to assist people with disabilities toward independent adult living is far too little. This holds true of developed and developing countries alike. More attention has been given in recent years in some countries and there have been a number of widely documented initiatives, but provision generally is sporadic at best and frequently non-existent. The UNESCO Review found that a majority of countries responding had limited or no post-school provision for those with disabilities.

The twin goals of action in this area are to help young people become economically active and lead lives that are as full and independent as possible.

Where special educational provision is well developed at school level, steps should be taken to ensure adequate preparation for life after school. This should cover both work and daily living. Preparation for work can include careers education and guidance, pre-vocational training and work experience. In some cases schools will provide direct vocational training, though substantial programmes in this area would normally be the responsibility of post-school agencies, the primary task for schools is to give young people, regardless of whether or not they have disabilities, a broad range of appropriate life skills, rather than to train them for specific jobs.

Technical and vocational training must take account of the local labour market and industrial infrastructure. It must however be forward-looking in respect of technological developments, which can significantly expand opportunities for people with disabilities.

Training can be provided in specialist training colleges or training centres catering exclusively for people with disabilities, and many such establishments have been set up. There is a growing realization that those with disabilities can benefit from the training opportunities available to the general population. This is leading to initiatives to incorporate training provision for people with disabilities into the general system for technical and vocational education. This entails substantial alterations in the latter as well as major changes in attitude, but it is a step toward the normalisation of experience for people with disabilities.

Parental involvement

Parents of children with disabilities can play a major role in their education – if facilitated and allowed. This can include assisting in school

activities, contributing to assessment and curriculum planning, implementing programmes at home and monitoring progress.

This role is first and foremost a matter of principle: parents have the right to be involved in their children's education. It is also, particularly in developing countries, a matter of securing the best interests of children with disabilities. An account of a family support programme in Kenya opens with the claim that "*the greatest resource in a developing country for helping the disabled lead lives which are as fulfilling and productive as possible is a well-advised and supported* family"' (Arnold, 1988). Parents are the child's first and natural teachers, and it makes sense to help them discharge this role to the best of their ability.

The UNESCO Review gathered information on parental involvement in assessment procedures and placement decision-making. Practice generally fell short of the ideal of parents as partners. In some countries assessment procedures included asking parents for details on the child's early development, but in the majority of cases no role was reported for them. As for participating in decision-making, the best they could generally hope for was the reactive role of agreeing to, or taking issue with, the educational placement proposed for their child by the professionals.

There is little argument about the desirability of involving parents as partners in their children's education. The challenge now is to translate the rhetoric about it into practical action. The strategies to be adopted will vary from country to country and must be articulated with local conditions and resources in mind. There are three fundamental conditions that must be borne in mind in all instances:

Empowering parents. If parents are to play an effective part in their children's education –after having been excluded for so long– they must be enabled to do so. This entails sharing information with them –on their child's condition and programme and on the facilities available. Teachers and other professionals must value what parents do and take steps to build up their confidence. They must give parents appropriate programmes and other ways of structuring their children's experience. They must give them access to schools and their own professional *sanctums*. Above all, they must acknowledge their right to contribute to decisions that affect their children.

Changing the roles of professionals. None of the above can happen without major changes in the role perceptions of professionals. If parents are to be truly empowered, professionals have to be convinced of the need to demystify their professional domains. They must be willing to give their skills away, or at least to deploy their skills through less expert hands. This in turn calls for new skills on their part –skills of dialogue, collaboration, team building and review. Above all, it requires on the part of many professionals a different concept of their professional domain and a different attitude to the exercise of their professional skills.

Working toward community participation. Community-based approaches to health, social welfare and rehabilitation have attracted much attention in recent years. They are seen to have particular relevance to developing countries where there is a vast pool of untapped human resources. Community-based approaches have not been developed extensively in special education but the model is likely to be just as appropriate to it as to other aspects of provision. It provides a natural context for parental involvement in special educational provision. Parents and family are part of a community, and a holistic involvement of the former also enrolls the wider community in support and responsibility.

Training

Developments in special educational provision are critically dependent upon the quality of teaching available. This in turn depends on the opportunities for training and professional development open to teachers. Teacher training, particularly in-service training, takes on extra significance at a time of change. When conceptualisations of handicap are being revised and integration means that teachers in

ordinary schools are expected to teach pupils with disabilities, training that was previously adequate may now need to be supplemented or restructured. This fact is a particular challenge in countries where basic teacher training is limited anyway.

The UNESCO Review painted a gloomy picture on training. Only a minority of the 58 countries reported coverage of disability issues in the teacher training available to all teachers. In service training opportunities for teachers in ordinary schools were similarly limited. A wide range of training opportunities were reported for teachers specialising in special education –a five-year course in a training college at one extreme to on-the-job instruction offered on an *ad hoc* basis at the other. A further UNESCO study, specifically on teacher training, provided more detailed information on training arrangements in 14 countries (Bowman et al., 1985; Bowman 1986). This showed the diversity of arrangements made, ranging from extended full-time courses in specialist training institutions to distance learning offered on a modular basis to serving teachers.

While it is difficult to generalize across so many countries, at different stages of development, it seems clear that the main thrust of training at present is directed at the specialist who will be working in segregated special schools. It is important to have such specialists and any training blueprint for the future should allow for a continuing supply of appropriate specialists. But there is also a major need of less highly trained workers. A very great number of children with disabilities could be helped in ordinary schools by relatively minor adjustments to the teaching provided in ordinary schools. Thus, a modest investment in low-level training could bring about major improvements in the special educational provision offered by schools.

A national plan for teacher training has to start with initial training. A major objective for all countries should be to ensure that all trainee teachers should learn something about disabilities and be aware of some of their educational implications. They would not become experts in teaching pupils with disabilities but they would learn how to modify the curriculum content and teaching approach of the ordinary classroom so as to give access to substantial numbers of pupils with disabilities. They would acquire some skills in identifying and assessing pupils with disabilities. They would appreciate the importance of working with parents and develop appropriate skills. They would also know where their own competence stopped and how they could benefit from collaborating with specialists.

A national plan should also make provision for in-service training for classroom teachers and headteachers on matters relating to disability. Even if substantial improvements were made in initial training, this is at the edge of the problem and is best seen as an investment in future. Most serving teachers for many years to come will not be affected by innovations in initial training. It is, moreover, those teachers who are long-serving and experienced who occupy the positions of leadership in schools. They take the crucial decisions on the curriculum and effectively control the progress of any school reform.

Relevant in-service training can be provided in a great variety of ways. At the most basic level general awareness courses can be provided for individual teachers or, more usefully, for all the staff in a school. The latter can be arranged quite economically by occasional training days when staff come together without pupils. The training input for such school-based training can come from a member of the school's own staff that has been on a training course, from special school staff or from some other disability specialist in the neighbourhood. More substantial training can be provided by arranging for individual staff members to go on appropriate courses.

Training arrangements must also ensure a supply of specialists in disability. Some countries have separate training routes for ordinary teachers and for teachers specializing in disability. This may be compatible with a high level of expertise on the part of the latter, but it is not conducive to integrated education. Many

countries incorporate training for specialists within the framework of training for all teachers, and some require those intending to specialize in pupils with disability to first spend some time teaching in ordinary schools. However the initial training of specialist teachers is organized, it is important that regular opportunities for in-service training and professional renewal be offered to these teachers.

Research and development

Educating pupils with disabilities is a complex matter. It is likely to be significantly improved if based on good information about the nature of these children's learning needs and how best to meet them.

Four broad areas of relevant research and development activity can be identified:

Studies designed to separate out the different forms of disability, deepen understanding of them and clarify their educational implications. These should draw on a variety of areas of study –medical, psychological, sociological– in addition to education.

Incidence surveys to establish the extent of local need.

Development activities directed at curricula, teaching approaches and the deployment of resources. This is a very broad area, including activities as diverse as developing sign languages, devising individual learning programmes and mobilizing community resources for educational purposes.

Evaluation. This too is exceedingly broad but also quite essential. Educational programmes, particularly at a time of change, must be monitored to make sure that they are achieving their objectives and that resources are being used to maximum beneficial effect.

The UNESCO Review found that one-third of countries responding allocated separate national funds for research and development in special education, though the size of the allocations were not recorded. The research topics cited with greatest frequency were integration, early intervention, the organization of special education, the transition from school to adult life and incidence surveys.

The priority given to research and development is worth noting, and it is to be hoped that the very modest expenditure on it will not be seen as an expendable luxury in the face of the inexorable pressure on service budgets. This is related to the major need for better information exchange. The UNESCO Review pointed out that "much can be learned from others' research and curriculum development, from their legislative practices and from the ways in which they organize and deliver services". No less important than maintaining a research and development capacity to service local needs is an efficient means of exchanging information with other countries and capitalizing on their information base.

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DEFENSIVE TEACHING: A STRATEGY TO FACILITATE THE EACH-ONE-TEACH-ONE PROJECT.

Hyacinth E. McDowall*

A most desirable outcome of the observance of International Literacy Year in the Republic of Trinidad and Tobago is the urge of 'literate' citizens to induce literacy in the 'not-so-literate'. To meet this demand, literacy projects have been launched at both the community level and the school level. At the community level, voluntary tutors are being trained in techniques for inducing functional literacy in adults. At the school level, several activities comprise a "Plan of Action", ncluding the introduction of a new pedagogical tool named "Defensive Teaching".

Defensive Teaching is a procedure which is designed to focus attention on a third person in the teaching-learning triangle. It takes for granted that the first person (the teacher) is training the second person (the student) to assist the third person (the adult or peer non-reader). Hence, it diverts attention from the deficits of the second person (the student), who perchance may be a disabled reader.

Defensive Teaching is not a method of instruction. Rather, it is a procedure which complements or augments the teacher's regular methods of reading instruction. Specifically, it is designed to provide a framework within which children are introduced to the intricacies of reading and simple diagnostic procedures during a free and non-threatening classroom environment.

The philosophy underlying Defensive Teaching is in direct harmony with sound principles of learning. The procedure is based on the premise that people learn best when: 1) the purpose for learning is established beforehand (Stauffer, 1975); 2) the learning activity meets a specific need (Wilson & Barnes, 1974); 3) the learner's self-concept is heightened in the process (Bernard, 1972), and 4) deterrents to learning are identified and played down.

The Establishment of Purpose

In applying the principles of Defensive Teaching to literacy instruction, the establishment of purpose is integral to the total exercise. The innovative device is designed to meet a specific purpose –that of introducing students to barriers of literacy while concurrently providing developmental instruction to enable them to defeat the powers of the barriers.

The specific purposes are not merely defined by the teacher, but are personal goals of both teacher and students. For example, the teacher's purpose is to instruct children in the fundamentals of reading skills for their own personal development, as well as equip them for imparting the acquired knowledge to the less en-

* Dr. Hyacinth E. McDowall. Chairperson of the National. Committee for International Literacy Year: Trinidad and Tobago.

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dowed. The students' purpose is similar to that of the teacher. They aim at acquiring the skill to facilitate their helping relationships. In the process, there are varied outcomes –intended as well as serendipitous.

Intended outcomes of Defensive Teaching fall into either of two inmediate categories: (a) teacher-designed and (b) student-designed. The teacher-designed outcomes include greater student insights into the intricacy of literacy, and improved performance in developmental reading behaviours. Similarly, the student-designed outcomes include mastery of reading skills at the instructional level, not as an end in itself, but rather to enhance their ability to detect literacy deficiencies in others and to provide informed on-the-spot remedial assistance.

Many are the outcomes that are incidental to the Defensive Teaching Procedure. Serendipitous outcomes include:

Accelerated and increased student learning. Students are motivated to learn in order to be informed participants in the promotion of national literacy.

Improved student-behaviour. The involvement of all students in the learning-teaching project stimulates intrinsic motivation which is necessary for facilitating on-task behaviour.

Heightened self-concept of students. The very nature of the exercise generates in participants a feeling of self-worth. Students feel better about themselves as they train for service in a campaign to eradicate illiteracy from their community.

Reinforced student-learning. In the process of imparting newly acquired information, learning is reinforced. In situations where student-learning is incomplete, the student soon discovers the gap as he attempts to purvey the newly acquired knowledge. This leads him to voluntarily seek further assistance from the teacher in surmounting the specific problem.

A Two-fold Need

Defensive Teaching provides for direct exposure to the problem aspects of literacy. The fact that over 889 million adults in the world are functionally illiterate (UNESCO, 1987 & 1989) is justification for early exposure of students to those behaviours and skills which are essential to literacy acquisition.

The need to equip students for service in the battle against illiteracy is justified on the grounds that:

"The effects of illiteracy are themselves well known, not only for the affected individuals but their communities as well: the inability to read, write or count affects the productivity of workers, impedes the organization of numerous public services, such as health and medical care, and complicates the creation of political structures founded on popular consent and participation." (UNESCO, 1989, p.1.)

Preparing students to help meet the basic needs of fellow citizens is self-motivating. The activity is subsumed under the egoistic needs, one type of which relates to self-esteem: "needs for self-respect and self confidence, for autonomy, for achievement, for competence, for knowledge" (McGregor in Pugh, 1980, p. 309).

The Heightened Self-concept

At the onset of instruction, the student of Defensive Teaching experiences feelings of self-worth. Such feelings pertain to his reputation: "a need for *status*, for recognition, for appreciation, for the deserved respect of one's fellows" (McGregor in Pugh, 1980, p. 309).

Competent teachers or administrators are those whose knowledge of psychology enables them to facilitate the achievement of students' basic needs. Defensive Teaching provides a framework within which students are allowed to play an active role in enhancing their own self-concept.

Identification of Literacy Deterrents

According to cognitive-field psychology, an individual's involvement in an activity is influenced by his level of understanding (Bigge, 1971). Hence, insights into common weaknesses in word recognition, comprehension

and independent study behaviours are necessary for the conceptualization of the literacy dilemma.

Defensive Teaching transports the student from the level of the passive spectator to the realm of the active facilitator. In the new capacity, the student –no longer a layman– is not merely conversant with reading terminology but is able to justify their significance and prescribe adequately for the development of literacy skills or behaviours that may be lacking in those whom they seek to help.

How the procedure is employed

In the attempt to promote literacy by means of the Defensive Teaching Procedure, certain considerations regarding literacy acquisition must first become common knowledge. They include the following:

The ability to read requires mastery of a complex network of skills at a level of automaticity.

Effective instruction in literacy involves conscious knowledge of the fundamental skills of reading, and the ability to detect when their absence interferes with the fluent reading process.

The rate of literacy acquisition is influenced by several factors such as the quality of the literacy environment, the extent of reading readiness achieved, the adequacy of instructional material and procedures, and the level of motivation that is generated.

Equally vital to the employment of the procedure is the teacher's understanding of the psychology of learning to which it subscribes and which is inherent in its constitution. The teacher's prior experience with peer tutelage should provide additional evidence to substantiate claims by Gartner et al (1971) concerning the efficacy of student tutoring.

Equipped with these understandings, the teacher proceeds confidently with the employment of the innovative procedure. The implementation is undertaken in three phases: the pre-teaching activity, the identification, and the feedback.

Phase One: The Pre-teaching Activity

The teacher sets the stage for the Defensive Teaching activity:

Establish the rationale for the observance of International Literacy Year (ILY). This includes: 1) discussion on the literacy situation in the world; 2) description of the United Nations General Assembly's mandate to UNESCO; 3) discussions on the role of UNESCO and its ongoing contributions to the development of world literacy; 4) a description of the state of national literacy; 5) discussions on the effects of illiteracy on citizens, acquaintances, friends, relatives.

Highlight the value of Trinidad and Tobago's participation in the observance of ILY. Elicit the benefits to be derived from this country's participation in the exercise. Have students suggest ways in which students can help to promote literacy in school, at home and in the neighbourhood.

Discuss the implications of UNESCO's objective to achieve world literacy by the year 2000. Engage students in critically assessing the reality of this objective. Introduce issues regarding the nation's achievement of literacy. For example, whose is the responsibility for developing literacy? How and when is it developed? Under what conditions is it best developed? How can citizens/students help to achieve world literacy? Assist students in the identification of the roles that they can play in the international endeavour. Assure them that the school can help in preparing them to assist the nonreader.

A critical factor in the employment of the pre-teaching activity is the tailoring of the content to the maturity level of the class. Effective teachers will have no difficulty in making the necessary adaptations.

Phase Two: The Identification

The teacher allocates ten to fifteen minutes each day to this activity. As the name implies, this phase of the procedure is concerned with: 1) pinpointing those elements which comprise

common weaknesses in reading, and 2) identifying methods and activities for overcoming the weakness or enriching the skill.

It must be borne in mind that the target group (the third in the triangle) will be characterized by variations in levels of literacy achievement. Hence, as a first step, priority should be given to establishing a foundation upon which would-be tutors could rely. As such, the teacher will need to play a significant role in channeling the initial course, while allowing enough latitude for individual inputs.

Following the initial attempt at foundation building, the teacher proceeds to adopt a course in sequencing reading growth, which builds upon the first step while reinforcing earlier learnings.

In every aspect of this phase of the procedure, the teacher maintains a defensive approach. That is, all information or explanation is advanced only in relation to the third person's problem, rather than aimed directly at the class or the specific student who identified the problem or previously exhibited manifestations of it.

The delineated steps throw insights into how the Defensive Teaching Procedure works.

Step 1:
Students generate a list of observable literacy needs. Initiate discussion on observable needs in reading and writing which suggest that a person may be experiencing some difficulty in literacy development. Encourage and assist students in their attempts to verbalize the need or difficulty. As each need is generated, transcribe it on to the chalkboard and add the name of the student that observed and volunteered the difficulty. For example:

Observed Need	Observer
Knowledge of:	
Names of letters of the alphabet	Linda
Word meanings	Charles
Letter position	Rooplal
How to use the dictionary	Charmaine
Beginning sounds	Harry
Letter formation	Indra

Encourage total class participation in this activity. Provide hints where necessary to encompass range of reading and handwriting skills.

Step 2:
Students and teacher organize list of needs Employ Brigham's (1980) Problem Approach to guide students in sequencing list of needs. Ask, "Which topic will we examine first?" "Which will be second? Why?" Due to the limited time allocated to the procedure (10-15 minutes daily), the organization of topics may occupy an entire period or require additional time.

Step 3:
Teacher formulates objectives for each topic, based on the level of the class. For example, in a Standard I class, the objectives for using the dictionary above may include:

Students will identify behaviours which tell that a person needs help in learning about the dictionary; discuss how being able to use a dictionary helps in the use of a telephone; make a picture dictionary based on things in the home and at work; compile a list of class names and all known relatives.

The last two objectives may be assigned as homework.

Step 4:
The teacher carefully plans the steps to be taken in order to facilitate the achievement of each objective. Prior to the formal presentation of each topic on the organized list of needs, the teacher delineates the steps to be taken in the process. For example, topic-knowledge of letter-position.

Students will identify reader-weaknesses which tell that help is needed in letter or word-position; state the direction in which words are written; correctly pronounce new or nonsense words; tell how reading a book is similar to pronouncing a word; given a short paragraph, demonstrate knowledge of letter-position in words and word-position in a running text.

Procedure: Introduce objectives to familiarize students with what is hoped to be achieved; generate discussion to encourage the identification of literacy needs in directionality. Encourage students to identify problems some people have with word-position; emphasize that words are written as they are sounded; invite discussion on the direction in which words are written:

Have individual students tell or show the direction: accept response: "left to right"; ignore wrong responses; emphasize the right responses; elicit response to the question: "In what way is reading from a book similar to pronouncing a word?"; accept answer: "Start at the left and move to the right"; elicit discussion on other directions required for reading a book; display a few sight words or high-frequency interest words that are familiar or unfamiliar. Let children identify words the way they would expect them to be pronounced; elicit closure statement on letter-position and word position

Have students work in groups, make a list of words in which letter-position is often confused, and discuss activities for giving practice in observing the right position; in large-group discussion, elicit group ideas for practice activities; assign homework activities. Let students prepare games/activities for helping their friends practice the right directions in pronouncing words; reading from a page.

Step 5:
The implementation of the fifth step in this phase of the procedure is dictated by the level and needs of the class. Depending on the maturity of the class, students may be able and anxious to relay training to *the third person* concurrently with their classroom identification activity. In the case of young children, the careful establishment of a foundation is crucial to the initiation and on-going success of the activity.

Phase Three: The Feedback

This aspect of the procedure completes the triangular link. The indirect connection between the first person (the teacher) and the third person (the adult or peer non-reader) is established.

As the name implies, students report daily on their "home tutoring" activities and are given immediate feedback, motivation and required assistance for on-going success in the individualized activity. This phase of the activity also provides opportunity for addressing student problems that are related to incomplete learnings and inadequate reinforcement.

Summary and Conclusions

The Defensive Teaching Procedure, an innovation of the nineties, provides a unique opportunity for maximizing involvement in the campaign to eliminate illiteracy. Under the premise of preparing students solely for assisting in the remediation of identified needs of a third person, the teacher capitalizes on the opportunity to enhance student learning. Many are the possibilities for improved literacy behaviours as are the psychological increments that are inherent in the procedure. There is no doubt that with the initiative, enthusiasm and resourcefulness of effective classroom teachers, rich literacy dividends could accrue from this International Literacy Year pedagogical activity.

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SCIENTIFIC AND TECHNOLOGICAL CHANGE AND LIFELONG EDUCATION

Ettore Gelpi*

North-South relations are often determined by technological links and transfers and by the opportunities that exist in the South to engage in independent scientific and technological research. The international division of labour influences and is influenced by these relations of scientific and technological dependence or independence.
The most powerful States, jointly to industrial and of services productive structures, contribute to the strengthening of the technological power of north countries at the same time that the enormous productive complexes and their networks change to be like world States without pretending of being States.[1]
An international economic community that could achieve balance in world power and establish democratic relations among countries, while maintaining respect for their cultures. A global awareness must be generated so that the world's five billion inhabitants can make common cause on a shared objective, using science and technology to achieve that aim rather than to produce new forms of violence and dependence.

Paradoxically science and technology contribute to new forms of exclusion, both between and within countries a permanent effort of inquiry is necessary to identify new kinds of social, productive, cultural and educational exclusion and to study ways of using science and technology to remedy old and new forms of exclusion. Turning present-day societies into societies of "inclusion" or integration is a very difficult but not an impossible task.

The new nuclear, computer and biological technologies can help to bring about changes for the better in working and non-working life and to give everyone a part to play in the social, cultural and economic spheres. Modernity is not synonymous with violence or exclusion. On the contrary, the aim of modernity should be to further the interests of all, not those of restricted groups within a particular society. Struggle for change cannot be merely scientific and technological; it must also be cultural, social, political and aesthetic.

All existing models of society –North and South, East and West– are prone to failure. Radical change is needed to meet the very explicit demands of the inhabitants of our planet, whether they live in the cities of the North or South or in rural areas. The communication and information society is a restive society, one that is not easily tamed and that wants to express its emotions. Hitherto it has seemed, however, that "the emotions of an individual are considered alien to both production and research work. Education, even in the arts and literature, is often conducted as a mere transfer of techniques rather than a nurturing of the capacity to feel and perceive and to freely express those feelings and perceptions".[2]

* Ettore Gelpi. Expert in education-work at UNESCO-Paris.

1 R. Petrella: "La mondialisation de la technologie et de l'économie". *Futuribles*, September 1989.

2 Mario Kamenetzky and Robert H. Maybury, "Changing perspectives. Contribution of education". *Science and Public Policy*. No. 2, April 1989, p. 108.

Changes in the world of work and in its organization

Education is having to cope with radical changes in the structures of production, the creation and development of new occupations and the emergence of new employment structures (self-employment, new services, new crafts). These changes are accompanied by new forms of organization of work, and whereas "scientific knowledge as such is the same for skilled workers and managers alike, its distribution follows a process of exclusion, separation and reification determined by the realities of the social hierarchy".[3]

Changes in occupations and in the organization of work affect both the quality of life at work and the quality of free time. Scientific and technological innovation also leads to job creation and destruction. The time freed from work does not secure any useful purpose for the unemployed or for alienated workers. Low-cost computers, optic fibres and intelligent robots create new kinds of revolution within the revolution within the revolution, but little attention is paid to these changes.[4]

Joint creativity is also necessary to improve the quality of medical, health, educational and cultural services, which are inadequate both in the North and in the South. The community needs services and it needs quality, but all too frequently the services are lacking and the quality is very poor. Cultural activities are potentially boundless and the aesthetic aspirations of men and women are infinite. The computer and robot society has a greater need for aesthetic experience and self-expression than traditional societies. There can be no scientific and technological revolution without an aesthetic revolution.

But the reality is that some countries of the North have factories without workers, while some countries of the South are witnessing the advent of a wage-based society. These two scenarios imply not only an international division of labour and work organization but also very different human and social structures in places of work.

Knowledge, culture and education

The international division of labour and the new patterns of work organization have given rise to new ways of depriving people of knowledge, and it is important, in the interests of democracy in information, "to resocialize knowledge, which implies making it available to all members of society".[5]

Information and training now form part and parcel of the productive process. If education were to be confined to school or university, it would be neglecting one of its most important functions, namely, to turn out productive and creative individuals. But it is important for both individuals and countries to become involved in designing the content of research and training. When individuals and countries are dependent on software, research and trainers, training implies making people functional but not independent, imparting skills but not education.

It is important for adults, regardless of their initial level of training, to be able to take part in the process of choosing educational research themes and determining training content and techniques. Adults are often merely consumers of vocational training for employment purposes and of educational and cultural activities during their leisure time. Formerly, it was the working class and rural culture of the northern countries that was invalidated.[6] Now this happens chiefly to the culture of the great majority of workers in the South and also the culture of

[3] L. Tanguy: "Les savoirs enseignés aux futures ouvriers", *Sociologie du travail*, No. 3, 1983, p. 354.

[4] A. Schaff: "Chi ha paura della disoccupazione tecnologica?" *Mondo Operaio*, November 1989, pp. 92-98.

[5] T. Mossa Suzuki. *Beyond computers, information, automation and democracy in Japan*. Kegan, London, 1988, p. 305.

[6] A. Carbonaro, A. Nesti, *La Cultura Negata*, Guaraldi, Rimini –Florence, 1975.

different categories of excluded persons in industrial and post-industrial societies; but the fight for culture and education is always an open-ended struggle. It is difficult to anticipate the results, and it is a fact that "education functions as a dependent variable of socio-economic change. Thus, when major changes occur in the economic or social circumstances of the rural population: a) knowledge previously acquired in school or through out-of-school activities begins to prove useful; b)educational demand is self-generated in response to the need to cope with new situations; c) the socio-economic changes themselves begin to have an educational impact".[7]

In a period of scientific, technological, social and cultural transition, new links with knowledge and education are possible. For example, there has hitherto been a very strong interrelationship between science, technology and military structures, but recent major arms reductions in both East and West have not only released resources for investment in non-military activities but have also enabled science and technology to be harnessed for peaceful productive and cultural purposes.

There have also been interesting social and political changes in many societies –North and South, East and West. Paulo Freire is an example of special interest to educators: arrested in his country, Brazil, in 1964, he was subsequently exiled for 15 years; he later returned as a professor to the city of São Paulo, is now the city's Municipal Adviser for Education and was a candidate for the office of minister of education of Brazil.

In the production sector, workers in new or traditional jobs have to negotiate with their employers over not only wages but also the organization of work, and in particular matters of knowledge and training.

A person's future in modern society depends on his or her educational opportunities in initial training and at work. A country's education policy consists not only of educational reform and legislation but also of everyday educational practice and the use of the various educational media. Lack of confidence in the formal education system frequently prompts parents, young people and adults to seek specific solutions to meet their educational needs. Communities seem to prefer public funds to be invested in social, medical and health services rather than education, but this trend may jeopardize educational democracy, in individual countries and internationally.

Investment in production, research and the environment is concentrated in the countries of the North, yet the needs of the South are far greater (high illiteracy rates, extremely high youth unemployment, intensive urbanization); the countries of the North and international organizations urge the countries of the South to develop their education systems, while at the same time restricting their ability to do so by economic policies (debt, investment, fiscal and tariff policies).

Educators

The profile of educators in both formal and non-formal education is changing and acquiring new dimensions, but ongoing evaluation and critical analysis of the qualifications and functions of educators is essential. In practice, their activities are closely linked to and constrained by educational, productive and social structures. New strategies are needed to establish links with the scientists, technologists and artists who are engaged in research and in the advancement of knowledge. Now more than ever, educators need to keep in touch with the radically changing economic, scientific and technological scene.

Educators are experiencing identity crisis because they lost the power of information that they possessed in the past, inasmuch as the training process goes through from educational structures to research and productive structures.

[7] S. Schmelkes, "Educación popular y campesinado", M. de Ibarrola and E. Rockwell. *Educación y clases populares en América Latina*. Centro de Investigación y de estudios avanzados, Instituto Politécnico Nacional, Mexico City, 1985, p. 158.

Just as committed educators fought in the past to make the school a freer place, with room for divergent and non-conformist ideas and opinions, so now they must join forces with all those involved everywhere in educational activities to develop new centres of creativity and non-conformism, in companies and in schools, in community centres and in the new popular associations set up for cultural and other purposes.

There are new forms of popular culture that are themselves the expression of resistance, creativity, aesthetic values, identity and solidarity, but educators are often out of touch with this popular culture or experience it as romantic moments. Speed and efficient international communication seems to be confined to technology, financial activities and commercial culture, with popular culture figuring as romantic and backward-looking rather than modern.

Cultural and educational strategies

Mass movements in the North and South have important historical and modern antecedents. They were the main agents of political change in societies where violence, dogma and hopelessness were the rule, both North and South; they helped to overthrow dictatorships and to impose a peace policy on governments, leading to the gradual destruction of arms. Many of them are actively engaged in freeing the world from all forms of racist violence. In the last ten years they have demonstrated the powerful role that the people can play in changing society and generating planetary awareness. Of course, in a world of five billion inhabitants, the efforts of mass movements must be combined with changes in public structures (the various forms of central and local authority).

In most countries the State is continually rocked by crisis, owing to a lack of identity and resources, and also (a positive feature) owing to the development of new forms of association and federation among States. Education can further these processes in mass movements and in public structures to ensure that State services are used in a democratic way. Importance must be attached to the exercise of human rights. Firstly a revolution in attitudes is necessary to make people realize that human rights are not the privilege of particular groups but are the common property of the world's five billion inhabitants. Secondly, it has to be made clear that the right to a certain quality of life is part of the history of all men and women and not only of a minority of individuals, groups or countries. Thirdly, men and women in a united world, of necessity and through their creative intelligence, will contribute to the establishment of new international structures capable of promoting human rights for all.

Science and technology harnessed to a global cause are closely connected with a change in the meaning and purpose of education. This does not imply that the rich educational and cultural tradition that countries have built up over time is of no significance. On the contrary, countries need a cultural and educational identity for the active formulation of global policies.

Ambitious aims, global strategies and international action all have their roots in specific projetcs in the various local conditions prevailing in individual countries. A change in the way science and technology are used implies, for example, relating scientific and technological activities to development policy in educational structures, in work-places and in the community. Science for all may prove to be little more than a rhetorical slogan if people continue to be prevented from finding out about and influencing scientific, technological and economic policies.

For many years I have been involved in the activities of three associations, in Seville (Colectivo Andaluz de Pedagogía Popular), Zurich (ECAP - Ente Confederale di Addestramento Professionale) and Paris (UGTSF - Union Générale des Travailleurs Sénégalais en France). All three associations have their origins in mass movements and seek by educational and cultural means to enable workers to play a real part in the process of technological

and scientific change in societies that are affected by the contrast in living conditions between North and South and also between one northern community and another. These associations are actively involved in the restructuring of industry and services (Switzerland), in action to secure respect for different cultures (France) and democratic development (Senegal) and in the process of change in Andalusia, which is becoming part of an international economy (Spain).

Poetry, drama and mathematics[8] form part of their educational and cultural activities aimed at achieving cultural development along modern lines, not restricted to 'folk culture' or to a technocratic approach. The three associations have links with research centres and university-level training establishments so that researchers in different fields and engaged in development projects can be associated with their work.

The common features of the three initiatives are: an international approach, participation of professional and non-professional educational personnel, a close tie between culture and education, a permanent process of communal self-learning, contacts with public institutions and independence in their educational and cultural policy decisions.

The three associations' common problems are: their relations with the culture of the younger generation which is often expressed through local initiatives and informal associations, and their relations with institutions that now regard educational activities for young people and adults as being more important than in the past –relations which offer the associations new opportunities but at the same time expose them to the risk of takeover and "conformity". These new conditions can also be turned to account by the associations as a focus for research and self-learning.

[8] F. Cordero Muñoz, *Didáctica de las matemáticas en educación de adultos*. Editorial Popular, Madrid, 1988.

OREALC Activities

REPLAD
Regional network for the training, innovation and research in the fields of planning and administration of basic education and literacy programmes.

Project 1. Training of key personnel

Regional Project for the Training of Trainers

II Regional Seminar-Workshop of Training of Trainers in Educational Planning and Management, Santiago, Chile, 1-31 October 1990-OREALC

Objectives

The Regional Seminar-Workshop of Training of Trainers in Educational Planning and Management was essentially aimed at contributing to the formation of technical teams for each country. Also it intended to consolidate training institutions capable of having a multiplier effect on the design, advancement and implementation of actions involving training, improvement, further training and updating of agents responsible for the planning and administration of education.

Curricular and pedagogical design

The II Regional Seminar-Workshop lasted four and a half weeks. During this period, four subject modules were discussed, each varying in length of days. Each module dealt with a central topic and various subtopics. Module One looked at the economic and social context of Latin America in which the educational process occurs, with emphasis on the eighties and the crisis. Module Two dealt with literacy strategies. Module Three focused on the role of the State in educational systems. Module Four dealt with the educational planner's instruments.

There was a Seminar level and a Workshop level. The former focused on topics and their respective subtopics and on a list of lecturers. The second focused on a working paper to be prepared by participants on Seminar topics.

The Seminar was generally held in the mornings and in plenary. The Workshop was held in the afternoons and in groups or individually.

Seminar-workshop design level

The Seminar was organized as follows: there was a presentation by a guest lecturer on the topic or subtopic he was responsible for, followed by a plenary discussion, both lasting no more than an hour and a half.

The objective of the workshop was to develop participants' skills in the complex diagnosing of educational system conditions, taking into account the importance of this phase within the overall planning process. To achieve this objective, participants were organized into groups by subregion or topic, and were asked to progressively fine tune the initial diagnosis of conditions in the subregion or topic, drawing on contributions submitted by the various lecturers.

Besides developing the diagnostic skills of those attending, the Workshop went into the strategic design of educational planning, which responds to the consequences of interventions in social process and the adjustments that must often be made in initial plans for this reason.

The diagnosis, included in a group paper submitted to the Academic Coordinator, Edmundo F. Fuenzalida, upon conclusion of the Seminar-Workshop, will serve as the basis for formulating strategies to overcome conditions analyzed.

In preparing this working paper, participants had advisory assistance from the Coordinator throughout the entire Seminar-Workshop. Also, during the final week they received advisory assistance from lecturers who had talked about contemporary educational planning instruments.

Modules, subtopics and guest lecturers

Module One. The economic and social context of Latin America in which the educational process occurs, with particular reference to the eighties and the crisis.
- Productive transformation with equity
  Lecturer: Fernando Fajnzylber (ECLAC).
- Transformation of the State. Its role in social processes
  Lecturer: Carlos A. de Mattos (Consultant, Uruguay).
- Changes in the labour market
  Lecturer: Lucio Geller (PREALC).
- Development and education strategies
  Lecturer: Juan Carlos Tedesco (OREALC).

Module Two. Planning and evaluation of literacy strategies.
- Evaluation of the Ecuadorian experience
  Lecturer: Rosa María Torres (Consultant, Ecuador).
- Major literacy issues in Latin America
  Lecturer: José Rivero (OREALC).
- Failure at school and its incidence in illiteracy
  Lecturer: Isabel Infante (CIDE).

Module Three. The role of the State in educational systems.
- Centralization and decentralization of educational systems
  Lecturer: Juan Casassus (OREALC).
- Funding of educational systems
  Lecturer: Ernesto Schiefelbein (OREALC).
- Quantitative aspects of educational systems: segmenting, coverage, repetition, etc.
  Lecturer: Cecilia Braslavsky (FLACSO, Argentina).
- Qualitative aspects of educational systems
  Lecturer: Johanna Filp (CIDE).

Module Four. The planner's instruments.
- New planning approaches and scenarios.
  Lecturer: Juan Prawda (World Bank).
- Computerized treatment of statistics
  Lecturer: Ernesto Schiefelbein (OREALC).
- Budget programming
  Lecturer: J. Claude Tibi (IIEP).

Collaborators

Staff of high international prestige linked to the following institutions collaborated with OREALC as lecturers and facilitators:
- Economic Commission for Latin America and the Caribbean, ECLAC.
- International Institute for Educational Planning, IIEP (UNESCO), with headquarters in Paris.
- World Bank.
- Regional Employment Programme for Latin America and the Caribbean, PREALC.
- Facultad Latinoamericana de Ciencias Sociales, FLACSO.
- Latin American educational research centres.

Funding and participants

The Government of Spain contributed financially to the conducting of this Seminar-Workshop within the framework of the Programme of Cooperation with the Major Project of Education.
Technical personnel directly linked to planning, management and/or supervision of education in the central departaments of Ministries of Education, regional and local educational organisms; university professors involved in staff training and further training programmes in the fields mentioned; senior or research staff from centres of excellence devoted to educational research.

A fuller evaluation of this Regional Seminar-Workshop will be included in the next Bulletin.

National courses

Argentina

As a national follow-up and third moment of the Regional Seminar-Workshop of Training of Trainers, the General Coordination of Planning of the Ministry of Education and Justice of Argentina –in cooperation with CFI, participants of both promotions of the Regional Seminar-Workshop and OREALC– organized a National Course on Training and Updating in Planning and Administration of Education, from November 19 to December 7, 1990. This course is set within the framework of the General Board of Educational Planning's course of action, aimed at strengthening planning and management processes within the Ministry's own structure, as well as in provincial domains and universities.

Course objectives were as follows: improve the technical skills of public officials involved in planning within the Nation and provinces to conduct innovative educational transformation processes; develop a training strategy that would integrate technical experts and university professors; improve levels of knowledge of university professors and incorporate them into joint work with provincial and national technical teams; contribute to the discussion of a new style of planning and management that would be flexible, dynamic and participatory;

reflect on the professional practice of planners to improve their insertion into the institutional domains where they work; train professionals with a critical and thoughtful spirit to contribute to the education transformation process.

The course was geared to 50 professionals who carry out technical planning and administrative tasks in national, federal and provincial public agencies or professors in the field of educational policy management and planning in national universities.

The General Board of Educational Planning of the Ministry of Education and Justice was in charge of the technical and material preparation of the event. It will act as coordinating entity with support from the Federal Investment Council, both member institutions of the REPLAD Network.

Mexico

The training programme consists of a series of eight seminars to be held from 1990 to 1993 during the months of July and November each year. It is part of the multiplier activities being carried out in Mexico to provide continuity with the First Regional Seminar-Workshop of Training of Trainers in Planning and Administration of Education. The Second Seminar-Workshop of Educational Planning and Management was held in Monterrey between November 19 and 30, 1990, in cooperation with OREALC. It was coordinated by the Educational Development and Research Programme of the University of Monterrey and the General Board of Planning, Programming and Budgeting of the Secretariat of Public Education. It is in line with the tasks assumed by the REPLAD Network. The First Seminar-Workshop was held in Oaxaca from July 9 to 20, 1990.

The following subjects were dealt with in the Second Seminar-Workshop of Educational Planning and Management: Quality of education; Sectorial planning; Microplanning; Theoretical and methodological approaches in planning; Education in Mexico and Latin American in a context of crisis; Information systems; New scenarios for Mexican education planning; Educational management and modernization of education; Evaluation of education; Adult education; Educational research and Programming and budgeting of education.

Chile

The Centro de Administración Educacional of the University of Concepción, under the aegis of REPLAD/UNESCO, organized the First Regional Seminar of Teacher Updating for the Araucanía Region, on September 7 and 8, 1990. The programme of this first seminar included three central conferences on "Challenges of Chilean education in the nineties", "Human resource management in education: goals and perspectives" and "Management of education in times of scarce resources". It also included six workshops on specialized topics in preschool education: "Evaluation in preschool educational systems" and "Preschool education and family"; in elementary education: "Challenges in the curriculum of general elementary education"; in secondary education: "The sciences in secondary education" and "Teaching-learning strategies in secondary education"; and technical and professional education: "Education and work relationship".

Likewise, CAE and the Faculty of Sciences and Education of the University of Playa Ancha, member of the REPLAD national network, jointly organized the IX National Seminar of Educational Management under the main theme "Quality and Equity in Education: the Challenge of Educational Management", held in Viña del Mar on December 14 and 15.

PROJECT I.5 Quality indicators in elementary education

As a follow-up to the Fourth Technical Meeting of REPLAD (Quito, Ecuador, October 2 - 6, 1989) a Regional Project was started on Measurement of Quality in Education with support from IDRC of Canada. Member institutions of REPLAD, which indicated the corresponding priorities in the Network Action Plan, participated in this project. These are the planning bureaus of Argentina, Brazil, Colombia, Ecuador and Venezuela.

The Project consists of the design and testing of a system for measuring quality levels attained by elementary schools in Latin American countries. To this end, a set of instruments will be validated and a logical and physical design will be created to introduce information systems into the quality of elementary education. The aim is to record current levels of quality and to encourage its excellence.

The concept of quality called for has two aspects: efficiency and relevance. Efficiency refers to the fulfillment of objectives and relevance to suitability, in the sense of responding to individual and social demands and needs of education. Quality of education is one of the central issues in Latin Amer-

ica. Its treatment has to do both with overall aspects of the development of its population and with aspects relating to the quality of life of individuals and families.

In terms of the latter, variations in quality are directly linked to the development of competence to achieve better personal and collective welfare levels. In terms of the more global aspect, the discussion on the quality of children's education has to do with long term issues regarding the future possibilities of countries in the region to place themselves in a better position vis a vis benefits from the impacts of technological progress, which today are essentially generated and profitted by in the developed world. Indeed, the structural problem pertaining to the growing evidence of inequity vis a vis such benefits is also observed at this level. These expressions can be seen operating discriminatorily un rural and indigenous sectors, urban poverty areas and in women's possibilities for development and participation.

CIDE, an institution affiliated to REPLAD, is helping to implement this Project. In particular, Johanna Filp, has participated in the first stage of the project, conducting national seminars in the following countries:

Brazil

From November 26 to 29 a National Meeting on Measurement of Quality of Education was held in Brazilia. It was organized by the Coordination of Sectorial Planning of the Ministry of Education along with the Secretariat of Science and Technology of the Presidency of the Republic. This event is in line with the perspective that equity, efficiency and quality are the central pieces of the educational policy of the current administration.

Colombia

From November 21 to 24, a national seminar was held to inform on and make known the System of Measurement of Quality of Education, and to exchange information on the progress of work being carried out by the Ministry of Education of Colombia regarding the evaluation of quality of education. This activity was considered pertinent due to the fact that work currently underway on evaluation is at the design and system-adjustment stage.

Ecuador

A national seminar on quality of education was held in Quito from October 8 to 11. Thirty persons in charge of regional education participated. This was the first time that regional planning office representatives met to jointly analyze educational problems they are faced with. The seminar concluded with a working plan which the Ministry of Education of Ecuador undertook to validate on an experimental basis in fourth grade language and mathematics testing. A team of two full-time persons was assigned to this task, and a testing schedule was set. The first results are expected for March, 1991.

Venezuela

During October 1 to 5, a national seminar was held on quality of education, attended by authorities from the Ministry of Education, researchers, university professors and international agency representatives.

The Seminar relied on broad news coverage. Articles were published which described the REPLAD/OREALC regional project and stressed the importance of taking actions to improve the quality of elementary education.

Two full-time persons were also designated in this country to validate a set of instruments from the module proposed by REPLAD/OREALC. It is hoped that the first results from this experimental application will be available by March, 1991. In addition, a study is being carried out on "the state of the art" of educational quality in Venezuela. It will be undertaken by Cinterplan.

PROJECT 4.1. Horizontal cooperation

From November 2 to 8, 1990, María Candelaria Rodríguez (Colombia) and Juan Carlos Palafox (Mexico), both participants of the II Seminar-Workshop of Training of Trainers in Educational Planning and Management, undertook coaching in Chile. During their stay, they visited the Information System on Physical Plant, SIPLAF, of the Ministry of Education, obtaining instruments, reports and the Programme of the 900 Schools of that Secretariat of State. They held working meetings with coordinators from the latter, technical groups, executives, teachers and monitors of a subsidized school from the Community of Conchali. They had an interview with the Academic Director of the Centro de Investigación y Desarrollo de la Educación, CIDE, and meetings and visits to observe the implementation of testing of the System of Measurement of Educational Quality, SIMCE.

Project 5. Support for the creation and consolidation of national networks

Argentina

In the National Seminar of Education Planning, held this past june, the Ministry of Education and Justice and the Federal Investment Council, sponsored by Project OAS 151, jointly and unanimously approved the formation of the Federal Network of Educational Planning and Management. Later, the corresponding working arrangements were drawn up, contained in the document "Federal Network of Planning and Management. Regional Working Programmes for the Transformation of Education". In it the following points were highlighted: establishment of regional networks of educational planning and management, political and technological axes, working programme of the regional networks, regional programming and an Annex describing regional meetings.

REDALF
Regional network for training of personnel and specific support in literacy and adult education programmes

Field of action: Literacy.
Line of activity: Research.
Name of the activity: *Regional research on functional illiteracy.*

Within the framework of REDALF, and as a derivation of the Technical Ibero American Consultation on functional illiteracy (Salamanca, October, 1988), the initial workshop of "Regional research on functional illiteracy" was held in the OREALC office, with support from OEI. It involved those responsible for and in charge of research in each country. Representatives from Argentina, Chile, El Salvador and Peru attended. These countries were selected on a preliminary basis to carry out research (Santiago, Chile, October 24 to 26, 1990).

At this meeting, the objectives, methodologies and data gathering instruments (mathematical testing, reading and writing, working and social skills and personal history forms) were presented and analyzed. Operative agreements were adopted with the countries.

The study penetrates into an unexplored field with a view to determine the state of functional illiteracy, in particular, competence in reading, writing and calculus of youngster and adults that have not completed the last grade of elementary school.

Field of action: Literacy.
Line of activity: Training and technical assistance/regional activity.
Name of the activity: *Mission of technical assistance on literacy policies by the itinerant team method.*

Within the framework of the REDALF Operative Plan for ILY, itinerant teams were formed to support national literacy strategies. One of the groups operated in Central America (El Salvador, Guatemala and Honduras) in September. The second operated in the Andean subregion (Bolivia, Ecuador and Peru) towards the end of October and during the first two weeks of November. The third operated in the Latin Caribbean subregion (the Dominican Republic and Haiti) in October.

In each of the countries mentioned, the respective teams developed activities with the Ministries of Education, and organized national workshops to discuss socioeconomic factors and the current situation in terms of literacy and future alternatives. In the case of countries from the Andean subregion and the Dominican Republic, the mission was jointly organized by OREALC and UNICEF. In Bolivia, Ecuador and Peru, the activity had to do with bilingual literacy, showing the growing institutionalization of this mode of education. This new view of technical assistance (itinerant) permits an interdisciplinary approach, by bringing together experts from different backgrounds into one team and achieving a comparative view of the problem, since the same group supports actions in different sociocultural contexts. To that effect, the collective work of national counterparts was pursued, as was their leading role in decision-making.

Field of action: Literacy.
Line of activity: Training and technical assistance/national meeting
Name of the activity: *Andean workshop of literacy and intercultural bilingual education (Ecuador).*

Between November 5 and 9 this

workshop on literacy and intercultural bilingual education was held in Quito, Ecuador. It was sponsored by OREALC and UNICEF and supported by the German Technical Cooperation (GTZ). Participants included the Dirección Nacional de Educación Indígena Intercultural Bilingüe (DINEIIB), delegates from Bilingual Normal Institutes, Technical Colleges, the Intercultural Bilingual Education Project; representatives from the Confederación Nacional de Nacionalidades Indígenas (CONAIE) and its affiliates, the Federación Evangélica de Indígenas del Ecuador (FEINE), the Federación Nacional de Organizaciones Campesinas e Indígenas (FENOCI), the Universities of Loja and Cuenca and other non-governmental organizations that carry out literacy or bilingual schooling programmes. In addition there was an observer from the University of Nariño, Colombia.

The objective of the workshop was to prepare a diagnosis of actions undertaken in literacy, post-literacy and bilingual education, indicating achievements and obstacles as well as establishing agreements regarding priority activities. It was concluded that among the main favourable aspects was the openness of the State towards indigenous management of their education as well as the greater interrelation of educational structures with indigenous communities and organizations and the strengthening of the latter as a result of this integration. The main recommendations were: undertake evaluations, train teaching staff and facilitate the creation of occupational and handicraft centres as a way to reinforce the literacy process.

Field of action: Literacy.
Line of activity: Training/publications.
Name of the activity: *Didactical materials for women's post-literacy and civic education programmes.*

As a follow-up to the subregional Workshop on production of educational materials in post-literacy and civic education for programmes with women from the Andean subregion (Lima, October 29 to November 9, 1990), a contract was signed with the following institutions to publish and diffuse in their countries the respective materials prepared at the meeting: CIDEM and the Women Legal Bureau in Bolivia; CAMI-CICOM in Colombia; the Institute for Women in Conchalí, Chile; PERU MUJER and PRODEMU (Tarapoto) in Perú, and CESAP in Venezuela.

Field of Action: Adult Education.
Line of Activity: Research.
Name of the activity: *Regional research on basic adult education.*

During September/December the final regional report was prepared. Surveys from ten countries were used as inputs (Colombia, Ecuador, Mexico, Peru and Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama), as well as secondary data from eleven countries (the same as above and Brazil)*. The document analyzes EBA effective demand (current users) based on primary data from ten samples of the countries mentioned, as well as official records. In addition, it characterizes supply and, in particular, the profile of teachers and directors also based on information obtained from samples and secondary files. Part two describes the interrelation between supply and demand, and presents a first approximation of potential demand. The study indicates the need to redefine supply through its openness towards a highly heterogenous potential population. This process also implies deschooling and the decentralization of current services. The final report will be analyzed in a regional Seminar-workshop (Antigua, Guatemala, January 8 to 12, 1991) in which Adult Education Directors, researchers, experts, personally invited guests and representatives of OREALC, OEI and the Government of Spain (the sponsoring country) will participate. Based on study results, an EBA Regional Improvement Project will be prepared.

Field of action: Literacy.
Line of activity: Training and technical assistance/subregional workshop.
Name of the activity: *Workshop on production of post-literacy educational materials and civic education for programmes with women in the Andean subregion.*

This workshop was held between October 29 and November 9 in Lima, Peru, in conjunction with PERU-MUJER. It was aimed at NGOs that work with newly literate women or those with low levels of schooling and NGSs that currently carry out or are interested in beginning civic education programmes.

Among the main workshop conclusions are: i) the importance of the participatory preparation of materials, even in the case of means requiring technical elements; ii)

* Uruguay and Venezuela will submit their results at the closing Seminar.

materials should not only include content which appeals to reason but also to emotions, which is important because it strengthens identity; iii) popular education does not mean low quality materials that lack communicative power; iv) communication is a complex cultural process that needs to be revealed, since it operates on the basis of mechanisms of negation and rationalization inherent in everyday life; v) materials are not at the core of educational and communicative work, rather, training processes are.

Among the main workshop activities there were two initial panels and a reflection with participants on the importance of reading for women from popular sectors. Ideas were raised such as: i) "through reading it is possible to experience emotions, to share the experience of others, to bring points of view face to face; reading is an effective way to approach knowledge and information"; ii) reading can provide elements to form leaders; it is a means for learning about one's health care and that of one's family. There were nine participants from the following countries: Bolivia (2), Chile (2), Colombia (2), Ecuador (1) and Venezuela (2).

Field of action: Literacy/bilingual education.
Line of activity: Training and technical assistance/national meeting.
Name of the activity: *National Seminar workshop on human resources development strategies for the education of indigenous population (Peru).*

OREALC sponsored the national Seminar-workshop in Lima, Peru (November 12-16) within the framework of the technical assistance provided by itinerant teams. Prior to this activity a proposal was submitted with the bases, general and specific objectives and contents of the event as well as the participants and experiences to be convened. At the meeting, which was organized by the Ministry of Education, it was proven that there are various non-governmental organizations available for collaborating not only with material but also with equipment and support staff. Also, in the seminar the groundwork was laid for joint work.

Field of action: Literacy.
Line of activity: Training and technical assistance/national meeting.
Name of the activity: *Seminar-workshop on strategies towards an intensive literacy action in 1990-1994 (Dominican Republic).*

During October 21, 22 and 23, 1990 a national seminar workshop was held in Santo Domingo, Dominican Republic, within the framework of technical assistance actions for this country. It was sponsored by OREALC/UNICEF. SEEBAC submitted the working paper "Towards an intensive literacy action 1990-1994". The following panels were organized: "National literacy experiences" in which CEDEE, UNESCO and SEEBAC participated and "The condition of women and children in positions of risk, curricular implications for literacy and post-literacy" (UNICEF). The Literacy Board, for its part, presented the paper "Towards decentralization of the execution of literacy actions for the period 1990-1994".

Field of action: Literacy.
Line of activity: Publication.
Name of the activity: *National Literacy Campaign in Ecuador.*

The document "External evaluation of the National Literacy Campaign "Monseñor Leonidas Proaño" was published in Ecuador with UNDP collaboration in funding, the technical assistance of the UNESCO Subregional Office in Quito and the cooperation of OREALC.

The results of the study were analyzed in issue No. 21 of the Major Project Bulletin.

Field of action: Literacy.
Line of activity: Publication.
Name of the activity: *Communication media: support for literacy and post-literacy programmes.*

A contract was signed to systematize and compile both the information obtained as well as the texts submitted and produced in the REDALF Regional Seminar Workshop on Communication Media in support of literacy and post-literacy programmes (Cuzco, Peru, July, 1990). This work will subsequently be translated in an OREALC publication.

Field of action: Literacy/Communication Media.
Line of activity: Diffusion.
Name of the activity: *Seminar "Alfabetizacao e a Midia".*

UNESCO was invited to sponsor the Seminar "Alfabetizacao e a Midia" (August 16-17), and sent a representative to make a presentation on its contributions to the International Literacy Year. The seminar, organized by the Asociación Nacional de Periodistas (ANJI), the Asociación Nacional de Editores de Revistas (ANER), the Asociación Nacional de Empresas Radio y TV (ABERT) and the Roberto Marihno Foundation,

created expectations in the communication media, which led to an increase in news on educational subjects and issues not previously covered by them. The seminar confirmed that literacy is one of the main priorities of the current government administration which in Brazil must be taken on as a collective problem of the government and civil society in which communication media will play a determinant role.

Field of action: Adult Education.
Line of activity: National meeting.
Name of the activity: *Seminar on innovative experiences and research in the teaching of mathematics to adults in popular sectors (Colombia).*

In November 1990, Non-Government Organizations associated to REDALF of Colombia which operate in the field of popular education (CEAAL, CLEBA and Dimensión Educativa), jointly published the seminar proceedings on innovative experiences and research in the teaching of mathematics to adults in popular sectors (Medellín, July 19-22, 1989). The book contains both papers of the meeting as well as proposals of different countries (Brazil, Colombia, Mexico) regarding pedagogical work with adults in learning mathematics. It constitutes an exploratory drawing nearer to the subject and contains, among other things, Piagetist applications, the teaching of arithmetic operations based on concrete situations (experiment on chicken feeding), the conception of space and the spontaneous drawing of adults from popular sectors.

Field of action: Adult education.
Line of activity: Training.
Name of the activity: *Regional workshop course on adult education.*

This REDALF Course-Workshop developed by CREFAL, was held in its headquarters at Patzcuaro, Mexico, from September 3 to 28, 1990. Sixteen representatives participated from the national REDALF institutions of Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Honduras (2), Mexico (2), Nicaragua, Peru, Uruguay and Venezuela.

The one-month course was characterized by the diversity of its subject matter which included: Adult education within the Latin American context; participatory planning and research; permanent training and continuous supervisory systems; learning methodologies for reading and writing and mathematics; and evaluation of literacy programmes. Its objective was to contribute to the development, strengthening and improvement of the training of staff involved in adult education, by promoting the integration of theory and practice in this field.

The final evaluation yields the exchange of knowledge and the analysis on the practice of adult education in several countries as being the important achievements and methodological deficiencies as being the main limitations.

Field of action: Adult education.
Line of activity: National meeting.
Name of the activity: *National seminar on the study of needs and expectations of the population between ages 15 and 40, who are elementary school dropouts and/or illiterate (Uruguay).*

The Central Council Board of ANEP (Administración Nacional de Educación Pública, Uruguay), organized a seminar in October, 1990, to discuss the conclusions of the study on "Needs and expectations of the population between ages 15 and 40, who are elementary school dropouts and/or illiterate". The report characterizes this population in quantitative and qualitative terms. It is interesting to note that in the selected sample 11.5% of persons between ages 15 and 40 did not finish elementary school (10.3%) or are illiterate (1.2%). These adults, concentrated in the older groups, are defined as population that is almost marginal to the labour force. The document is a significant contribution to a regional characterization of potential demand for adult elementary education as well as of functional illiteracy, particularly the competence of these adults in reading an writing.

PICPEMCE
Regional network for the training, in service training and further training of teachers

Workshops on Systemic Approach in Reading and Writing Projects

Three workshops, whose objective was to carry out systemic comprehension exercises on an educational project, were held in October with three of the reading and writing projects selected by OREALC.

The workshops took place in Cali, Colombia; Heredia, Costa Rica and Oaxaca, Mexico, under the guidance of expert Arturo Matute, as Coordinator of the PICPEMCE Network. The first is the project "The child and school" attended by academics from the Universidad del Valle; the second, named "Initiation of reading and writing processes from Operative Pedagogy with children ages 5 to 9", coordinated by academics from the Universidad Nacional de Heredia; and the third, "Experimental work for the teaching of reading and writing in the Mixe language and first grade elementary school mathematics", coordinated by academics from the Universidad Pedagógica Nacional de México, Oaxaca campus.

During each workshop, a systemic vision was applied to the project itself in order to make its complexity manageable, to understand its dynamics in an impersonal way, to set up an inventory of all types of resources available to the project and their respective deficits, recognizing constraints and establishing a realistic strategy.

As a result of the workshops a systemic fiche of each project studied was prepared which will enable it to be better understood by other project coordinators and will orient possible exchanges and horizontal support in the future.

Cooperation activities with IDEPA for the training of teachers for peace

PICPEMCE was present at the course on the training of teachers for peace, organized by the Instituto de Educación para la Paz, IDEPA, in Valparaíso, Chile. It contributed elements and a methodological orientation for the greater success of this initial experiment in the region.

The course lasted one semester, from July to December, 1990. A group of 35 teachers of different levels were trained to develop curricula from the different areas of knowledge, towards an education for peace.

A parallel introductory series on the subject was also developed for supervisors from the V Region of the Chilean territory, in cooperation with IDEPA itself and the Regional Ministerial Secretariat of Education of this Region.

Advisory Assistance for the Continuing Teacher Improvement System in Teacher Workshops, Rio Negro, Republic of Argentina

During the month of November, 1990, a seminar was held on Evaluation and Planning of the Continuing Improvement System (SPP) accompanying the mid-level reform process of the Province of Rio Negro in the Republic of Argentina. To date, the SPP has held 85 teacher workshops –and aims to increase this number to 105 in 1991– in which approximately 1 600 teachers have participated. The seminar was attended by workshop coordinators and supervisory team members of the Provincial Technical Support Service.

The seminar relied on the advisory assistance of OREALC expert, Rodrigo Vera Godoy.

The SPP evaluation was highly positive in terms of its role in Reform development. A general impression is that teachers value the workshop highly as a means to provide room for thinking and collectively preparing new curricular proposals and for the continuing evaluation of its results.

The planning task focused on training coordinators to accompany the process of critical conversion of documents of new establishments and degrees that will be incorporated into the Reform during 1991.

Demonstrative experience of the training method in Teacher Workshops, Santiago, Chile

Between the months of September and December, 1990, a PICPEMCE expert coordinated a demonstrative experience of (TW) among the staff of Diagnostic Centres of the Metropolitan Region of Chile. The

object of the workshop was to make the TW proposal known as an input to Diagnostic Centres' thinking on their role in overcoming learning disabilities of students.

The eighteen professionals participating made up six TW coordination teams in order to spread the experience among the rest of Diagnostic Centre officials in 1991. This effort will be accompanied by a PIPEMCE expert who will supervise coordination practices.

For 1991 the Diagnostic Centres are considering the possibility of encouraging the development of TW among professionals, and from them, to support the acquisition of greater responsibility in the face of learning disabilities of students.

Group thinking experience on the problem of school achievement in the Commune of Conchali, Santiago, Chile

Between the months of May and December, 1990, OREALC supported a thinking process on the problem of school achievement, using the teacher workshop method. Teachers from 45 schools dependent upon the Municipality of Conchali dealt with the subject of understanding the problem, its extent, causes, actions developed to overcome it and the preparation of solution alternatives. The communal technical team was trained by an OREALC expert to subsequently carry out the process which led to a final report.

Through this initiative, OREALC finds itself cooperating with the commune proposal to promote local educational development within the framework of the World Conference on Education for All. In 1991, several actions will be promoted, among which are the design of educational projects by establishments as the basis for local development planning, based on the determination of basic learning needs.

A continuing teacher improvement system, using the teacher workshop method, is called for as training room to go ahead with the initiative.

SIRI
Regional Information System

Area: *Data base of qualitative and statistical educational information.*
Course of action: *Base of educational statistics by country.*

Twenty five of the 35 countries of the region replied to the information requested by SIRI for the years 1988-1989. Its processing has begun so as to be made available in the Data Bank and to be used in preparing the report for the Ministers' meeting to be held in April, 1991.

Five data bases await development by CRESALC-Caracas and the Academia de Ciencias de América Latina (ACAL) over the next five year period. The data bases will cover all of Latin America and the Caribbean. Their subjects will be: employment supply and demand and exchange of researchers; scholarships and research grants for scientists and postgraduate science students; researchers residing outside the region; regional and subregional scientific events and postgraduate science programmes. The agreement was signed in August, 1990.

A study on quality of education will be one of the first tasks of a working group in "Building educational research and assessment capacity" organized by the World Bank. At least one country from the region will be included in the study.

A survey on information service needs and user categories in member states is being carried out by Mrs. Denise Pelissier of the Coordination Unit of the UNESCO Centre for the Exchange of Information. The object is to create a data base that would serve a world network of users. Our Documentation Centre coordinated the survey in Chile and has already sent 35 replies to Paris.

Area: *Analysis of statistical and documental information.*
Course of action: *Publications.*

The State of Education in Latin America and the Caribbean, 1980-1987 has recently been published by OREALC and is being distributed in English-speaking countries.

There are 250 reports and documents classified in the *Documentation Centre Bulletin* for the period January-June, 1990. Those interested in obtaining the Bulletin may write to us.

The volume intended for Adult Education and Literacy will appear in the next issue of *Abstracts* published by CIDE and the microfiche will be available in network centres throughout the region.

An analysis of the information on quality of education in Latin America was published by the International Institute for Educational Planning (IIEP) in issue 162 of the *Research Report* Series and by OREALC in this Bulletin.

Area: *Analysis of statistical and documental information.*
Course of action: *Information processing and the preparation of reports.*

SIRI prepared information for a technical assistance mission to the Ministry of Education of Bolivia. Good team work with country officials allowed a programme of action to be designed for preparing a project that will eventually be submitted to the World Bank.

SIRI estimated the demand for entry into higher education in Chile over the next decade, at the request of the presidential commission for the analysis of higher education. A report on the higher education situation in the country will be published in early 1991.

Teacher characteristics in Paraguay were analyzed using sample data. The Centro Paraguayo de Estudios Sociológicos prepared a preliminary report and the final version is expected for mid 1991.

Four hundred reports and documents on technical education were identified and summarized. One out of every three works is expected to be selected for inclusion in the third volume of *Monothematic Abstracts* published jointly with CIDE.

Opportunities for women's education were analyzed in a report requested by UNICEF.

Area: *Exchange and use of information and documentation.*
Course of Action: *Management Information Systems.*

The Group of Users of REDATAM (GUR) is publishing *Redatam Informa* which describes the use of this programme and the main applications or modifications. Those interested may request a copy at: Instituto Nacional de Estadísticas, Casilla 498-3, Santiago, Chile.

A feasibility study to develop the information system for decisions in education in Argentina was positively evaluated by SIRI, and it is expected that a contract will be signed in early 1991 with the consulting group that would give effect to it.

Basic information on Paraguay for a joint UNESCO-Inter-American Bank mission was prepared by SIRI, which made it possible to preliminarily identify a project to promote elementary education in that country. A new training mission is expected to be carried out in mid 1991.

Area: *Exchange and use of information and documentation.*
Course of action: *Information sub-networks.*

The International Network of Educational Data (INED) is interested in receiving reports and documents on education organization and policy, its development trends and school system reforms. Material may be sent to Mr. Zachariev at the International Education Office in Geneva, Switzerland (Case Postal 199-1211, Geneva 20).

The International Association for the Evaluation of Educational Achievement (IEA) will carry out the Third International Mathematics and Science Study in 1993/1994 and will repeat it in 1997/98. Dr. William Loxley will coordinate the study and it is expected that various countries of the region will participate.

Area: *Exchange and use of information and documentation.*
Course of action: *Programmes for the analysis and projections of information.*

Models developed by SIRI to estimate repetition levels were tested in three provinces of China with excellent results. Model estimates coincided with field studies in which, together with the mothers, the school history of the children was reconstituted.

A course on Educational Informatics was held from September 2 to October 6, 1990 in Rio Tercero, Province of Cordoba, Argentina. It is hoped that in addition to acquiring informatics skills and abilities, those taking the course can prove intelligent informatics users and can discover new applications.

Education productivity indicators were developed by OECD countries in a coordinated effort by the Center for Educational Research and Innovation (CERI). The first phase has been completed and five networks have been organized to identify indicators in: enrollment, careers and dropouts; education results; school ecology; costs and resources, and attitudes and expectations.

A development budget of US$ 500 000 is available for the next two years, in addition to the costs of the five networks and the participation of each of the 24 countries.

Area: *Management Information Systems.*
Course of action: *Seminars/Congress.*

The measurement of quality and the limits of traditional models were the subjects analyzed using SIRI information in seminars held

in the Universidad Austral (November 7, 1990) and in the Universidad Diego Portales (November 18, 1990), both in Chile.

Management Information Systems (MIS) was the subject presented at the Inter-American Workshop developed by the Centro Interamericano de Enseñanza de Estadística (CIENES) in November and December. SIRI experience was presented and 28 experts (11 women) from 10 countries examined new developments as well as uses of the data bases and modes of information distribution.

Access and efficiency indicators of education systems operation and data consistency were the subjects with which SIRI collaborated in the Inter-American Course organized by the Latin American Demographic Center (CELADE) held in October, 1990. Twenty experts (12 women) from 15 countries participated in the Course.

Educational system development and levels of school failure were two of the subjects developed by SIRI at the XXI International Course organized by the Latin American Institute for Economic and Social Planning (ILPES) held in October, 1990. Twenty four experts (15 women) from 14 countries participated in the sessions.

OTHER ACTIVITIES

Low cost printed material done at a national level

In Ecuador, Project 522-ECU-10 AGFUND/UNESCO involving Support to the Central Unit of Documentation and Didactical Material for the Department of Technical Education (DET) of the Ministry of Education and Culture, is ending. It relied on the financial cooperation (donation) of the Arabian Gulf Programme for United Nations Development Organizations (AGFUND) and the technical assistance of UNESCO.

The ultimate goal of the Project was to make various materials available to the DET that would allow for the qualitative improvement of technical education in the country. Thus, informative, audiovisual and video materials and documents were prepared, adapted and adopted, which, together with printed material, have been made available to the board of directors and teachers of technical colleges in Ecuador.

To this effect, it is interesting to note the headway made during 1990 in terms of the printing of technical education analytical plans and programmes and other UNESCO –and in particular OREALC– publications, that were duplicated in low cost numbers of 500 copies each and delivered free of charge or sold at nominal price to national education boards and teachers.

Mention should be made of efforts to train national staff that has made it possible to execute these actions and, most important, which will allow activities to continue in the future relying only on national resources.

Agreement between the National Youth Institute of Chile and OREALC

The National Youth Institute and the UNESCO Regional Office for Education in Latin America and the Caribbean, (OREALC), signed a cooperative arrangement by which NYI will receive technical support from OREALC for several of its education-related programmes, in particular that of Youth Houses. NYI in turn will offer OREALC its support in eventual cooperative actions in educational activities throughout the national territory.

Also, UNESCO will offer its opportunities for international contacts to establish eventual NYI cooperative actions with other youth groups such as the "UNESCO Clubs" which support Organization actions.

The agreement was signed on December 18, in OREALC offices in Santiago, Chile. The National Youth Institute was represented by its Director, Sergio García Opazo and OREALC/UNESCO by its Director, Juan Carlos Tedesco.

Youth is one of the so-called "Transversal Subjects" of the UNESCO Medium Term Plan (1990-1995) and, therefore, it is present in all the Main Areas of the Programme. This policy responds to Resolution C/24 approved at the 24th meeting on UNESCO's contribution to the development of international cooperation for youth (1989), to recommendations of the World Congress on Youth (Barcelona, July, 1985) during the International Year of Youth and Resolution 43/94, unanimously approved by the United Nations General Assembly in its 43rd session on the "Youth issue".

As the National Youth Institute consolidates its development as an institution and defines its programme's course of action, newareas of collaboration may be established between UNESCO and NYI.

OREALC Publications

- *Situación Educativa de América Latina y el Caribe, 1980-1987.* (SIRI) Santiago, Chile, September, 1990, 499 pp.

- *Mecanismos de articulación entre la enseñanza* escolar y *la extraescolar.* Final Report, Subregional technical consultation. Montevideo, Uruguay, November 20-24, 1989. (Educación científica y tecnológica). UNESCO/OREALC-CIDE. Santiago, Chile, August, 1990, 158 pp.

- *Educación general de los trabajadores en América Latina.* Subregional Seminar. Santiago, Chile, October 16-20, 1989. UNESCO/OREALC-PET. Santiago, Chile, August 1990, 116 pp.

- *Las organizaciones de los docentes en las políticas y problemas de la educación.* Estado del Arte. Iván Núñez P. UNESCO/OREALC-REDUC. Santiago, Chile, September, 1990, 92 pp.

- *Participación de las organizaciones de docentes en la calidad de la educación.* Santiago, Chile, September, 1990, 96 p.

- *Capacitación de personal agropecuario de nivel medio.* Final Report. Subregional Seminar Workshop. Barquisimeto, Venezuela, September 25-29, 1989. (Educación científica y tecnológica). Santiago, Chile, September, 1990, 158 pp.

- *Perfeccionamiento docente de personal de educación técnica postsecundaria. Handbook.* Luis Eduardo González. (Educación científica y tecnológica). Santiago, Chile, September, 1990, 370 pp.

- *Formación de personal para la enseñanza de física, química y biología.* Final report. Subregional seminar, Santo Domingo, Dominican Republic, November 6-10, 1989. (Educación científica y tecnológica). Santiago, Chile, November, 1990, 110 pp.

- *Contacto.* Vol XV, No. 2, June, 1990. Boletín de Educación Ambiental de UNESCO/PNUMA. Santiago, Chile, September 1990, 8 pp.

- *EFA 2000* Volume II, No. 2. Bulletin of the World Conference on Education for All. Santiago, Chile, October 1990, 4 pp.

OREALC publications are for sale to all those interested. For inquiries and prices kindly contact UNESCO/OREALC at Enrique Delpiano 2058. Casilla 3187 Santiago, Chile. Fax 491875.

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CONTEST OF PROJECTS ON LITERACY FOR WOMEN

UNESCO and UNICEF are sponsoring a subregional contest and four national contests of projects intended for NGOs on literacy for women of Andean area countries: Bolivia, Colombia, Chile, Ecuador, Peru and Venezuela.

Interested NGOs shall submit their projects bearing in mind the following alternatives:

Contest of Projects on Literacy for peasant and indigenous women of the Sub-Andean region (prizes financed by ORE-ALC/UNESCO).

1st Prize:	US$	14.000
2nd Prize:	US$	9.000
3rd Prize:	US$	5.000

Entry deadline: February 28, 1991.

National Contests of Projects, financed by the national offices of UNICEF of Chile, Ecuador, Peru and Venezuela.

Chile: Contest to encourage the design and development of a research project on the characterization of female illiteracy in Chile.

Sole Prize: US$ 10.000.
Entry deadline: February 28, 1991.

Ecuador: Project contest to characterize illiteracy among women in the indigenous population of Ecuador.

Sole Prize: US$ 10.000.
Entry deadline: February 28, 1991.

Peru: Research contest on Projects and Experiences of Literacy in Peru.
This contest is sponsored, in turn, by the Peruvian Science Development Association.

Grants equivalent to US$ 8.000 will be given to experienced researchers and US$ 4.000 to new researchers.
Entry deadline is January 25, 1991.

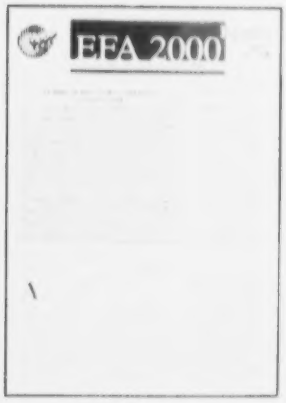
Venezuela: Contest of literacy projects with young mothers of Venezuela.

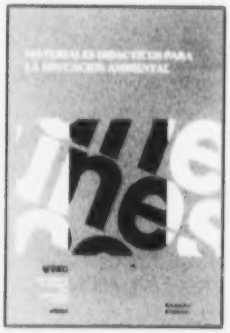
Sole Prize: US$ 10.000.
Entry deadline: February 28, 1991.

Note: Interested NGOs may apply both to the Subregional Contest and to the National Contest with projects tailored to the corresponding bidding conditions.

Bidding conditions may be picked up and projects submitted to national UNICEF offices or to UNESCO offices located in Andean Area countries.

OREALC PUBLICATIONS





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The Major Project of Education in Latin America and the Caribbean has resulted from a consensus on the part of government representatives of the countries of the region concerning the necessity for a renewed, intensive and sustained effort to make good deficiencies and to meet unsatisfied basic educational needs between now and the year 2000 as a prerequisite for the development of the those countries in line with objectives shared by all and by means of actions in which each country's own effort may be benefited by horizontal, subregional, regional and international co-operation.